



CLYDE CREEK PRECINCT STRUCTURE PLAN

FEBRUARY 2014



local context
clyde creek precinct structure plan

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Reference to the Metropolitan Planning Authority (MPA) in this document is a reference to the Growth Areas Authority (GAA).

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PLANS

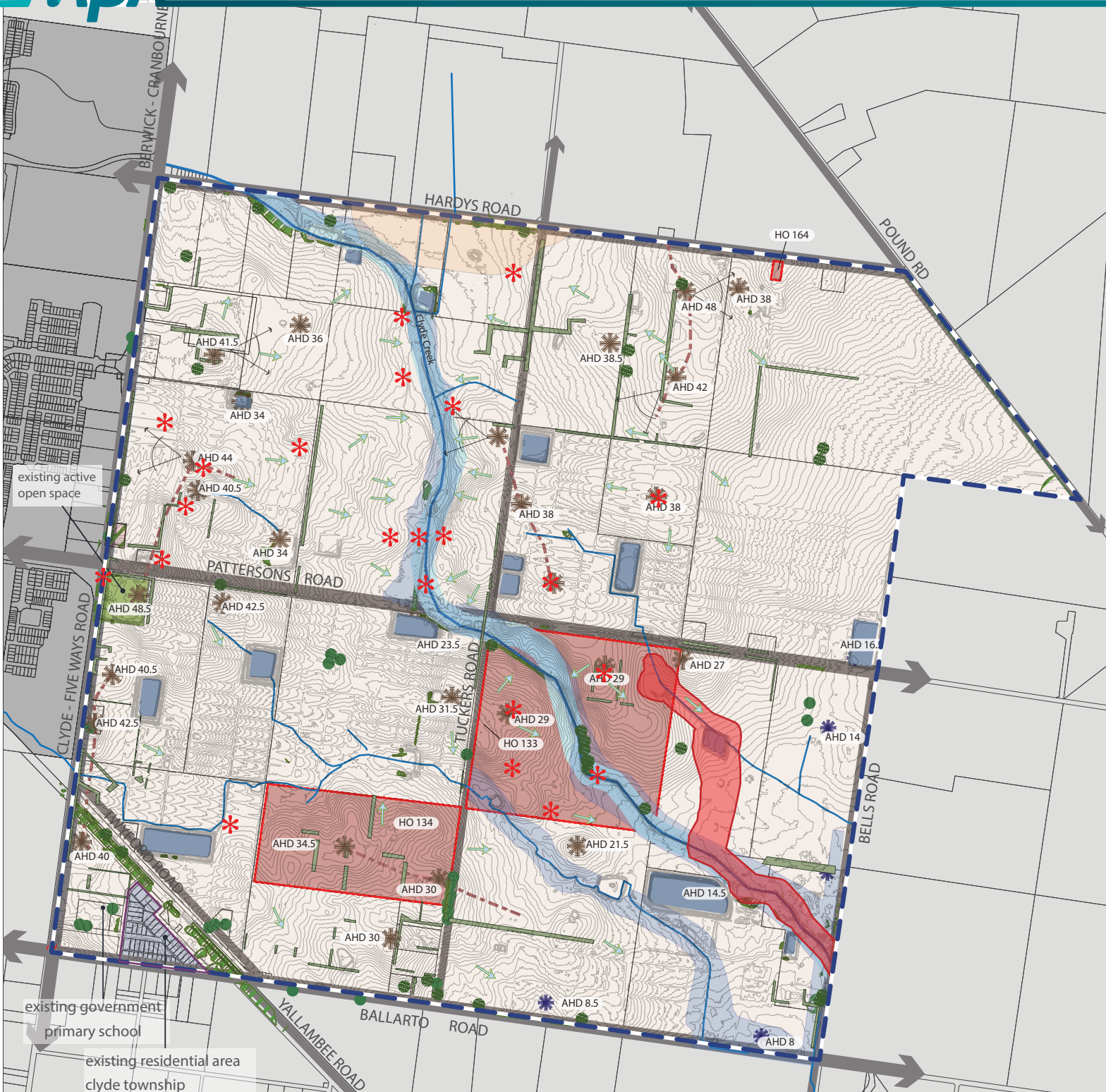
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- | | | | |
|--|---|--|--|
| | precinct boundary | | existing vegetation/scattered trees/wind-row |
| | existing roads | | urban flood zone |
| | existing urban | | land subject to inundation overlay (LSIO) |
| | future urban | | waterways/drainage lines |
| | contours (0.5m) | | direction of slope |
| | ridge line | | existing dams |
| | high point | | growing grass frog corridor category 1 habitat |
| | low point | | registered aboriginal cultural heritage place |
| | quarry current separation distance (250m) | | |
| | existing heritage overlay | | |

plan 1_precinct features
clyde creek precinct structure plan

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1.0 INTRODUCTION

The Clyde Creek Precinct Structure Plan (the PSP) has been prepared by the Metropolitan Planning Authority (MPA) with the assistance of the Casey City Council, Government agencies, service authorities and major stakeholders.

The PSP is a long-term plan for urban development. It describes how the land is expected to be developed, and how and where services are planned to support development.

The PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with the Victorian Government guidelines.
- Enables the transition of non-urban land to urban land.
- Sets the vision for how the land should be developed and the outcomes to be achieved.
- Outlines the projects required to ensure that future residents, visitors and workers within the area can be provided with timely access to services and transport necessary to support a quality and affordable lifestyle.
- Sets out objectives, requirements and guidelines for land use, development and subdivision.
- Provides Government agencies, the Council, developers, investors and local communities with certainty about future development.
- Addresses the requirements of the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* in accordance with the endorsed program and the relevant action approval for Melbourne's growth corridors under Part 10 of that Act.

The PSP is informed by:

- The *State Planning Policy Framework* set out in the *Casey Planning Scheme*; and
- The *Growth Corridor Plans: Managing Melbourne's Growth* (Growth Areas Authority, June 2012); and
- The *Local Planning Policy Framework* of the *Casey Planning Scheme*; and
- The *Biodiversity Conservation Strategy* and *Sub Regional Species Strategies for Melbourne's Growth Areas* (Department of Environment and Primary Industries 2013); and
- The *Precinct Structure Planning Guidelines* (GAA, 2009); and
- Background studies undertaken in the preparation of the PSP.

The following planning documents have been developed in parallel with the PSP to inform and direct the future planning and development of the Precinct:

- The *Clyde Development Contributions Plan* (DCP) requires development proponents to make a contribution toward infrastructure required to support the development of the Precinct.
- The *Clyde Creek Background Report* (Background Report).

1.1 How to read this document

This Precinct Structure Plan (PSP) guides land use and development where a planning permit is required under the Urban Growth Zone (Clause 37.07 of the Casey Planning Scheme), or any other provision of the planning scheme that references this structure plan.

A planning application and a planning permit must implement the outcomes of the PSP.

Each element of the PSP contains requirements, guidelines and conditions as relevant.

Requirements must be adhered to in developing the land. Where they are not demonstrated in a permit application, requirements will usually be included as a condition on a planning permit whether or not they take the same wording as in this structure plan. A requirement may reference a plan, table or figure in the structure plan.

Guidelines express how discretion will be exercised by the responsible authority in certain matters that require a planning permit. If the responsible authority is satisfied that an application for an alternative to a guideline implements the outcomes the responsible authority may consider the alternative. A guideline may include or reference a plan, table or figure in the PSP.

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Conditions must be included in a planning permit.

Meeting these requirements, guidelines and conditions will implement the outcomes of the PSP.

Development must also comply with other Acts and approvals where relevant e.g. the *Environment Protection and Biodiversity Conservation Act 1999* in the case of biodiversity or the *Aboriginal Heritage Act 2006* in the case of cultural heritage, amongst others.

Not every aspect of the land's use, development or subdivision is addressed in this structure plan. A responsible authority may manage development and issue permits as relevant under its general discretion.

In this PSP:

1. "GGF conservation area" has the same meaning as that part of "Conservation Area 36, Growling Grass Frog Corridors" shown along Clyde Creek.
2. Reference to Clyde Creek Corridor means the whole of the creek corridor including the GGF conservation area.

1.2 Land to which this PSP applies

Clyde Creek PSP 1054 occupies an area of approximately 1,154 ha in the City of Casey. The precinct extends from Hardys Road in the north to Ballarto Road in the south; and from Berwick-Cranbourne Road/Clyde-Five Ways Road in the west to Pound Road and Bells Road extension in the east.

North-west to south-east features predominate naturally due to topography and consequently north-east to south-west connections will need to be created across the corridor to ensure an adequate open space network is achieved. The waterway features that dominate the landscape in PSP 1054 provide strong opportunities for high amenity residential communities through elevation and natural view/sight lines.

PSP1054 has a Net Developable Area (NDA) of approximately 866 hectares.

Plan 1 identifies the key features of the land contained within the precinct boundaries.

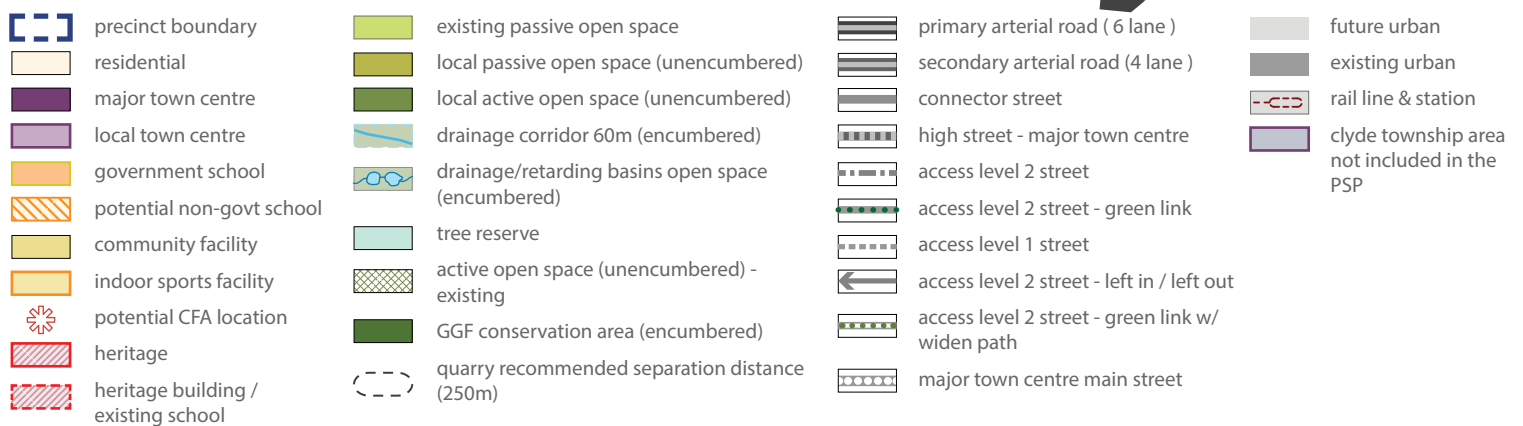
1.3 Development Contributions Plan

Development proponents within the Clyde Creek Precinct will be bound by the *Clyde Development Contributions Plan* (the DCP). The DCP sets out requirements for infrastructure funding across this and two other precincts.

The DCP is a separate document incorporated in the *Casey Planning Scheme*.

1.4 Background Information

Detailed background information on the precincts is available including their local and metropolitan context, history, biodiversity, landform and topography, open space and community facilities. This information is summarized in the Clyde Creek PSP 1054 Background Report and has informed the preparation of the PSP's.



2.0 OUTCOMES

2.1 Vision

Clyde Creek is planned to be a community where a distinct urban form, characterised by a strong grid of high quality streets, is complemented by an extensive natural creek environment and park network. The Clyde major town centre, planned immediately to the north of the potential future Clyde railway station, will deliver extensive services and facilities to the surrounding residential area.

The precinct will ultimately support a residential community of approximately 13,900 dwellings and a population of around 38,800 people, and deliver over 7,500 local jobs.

Clyde Creek will be a place that residents and businesses are proud to call home, a place of significant housing choice, catering for a diversity of people, and a connected community through public transport, road-trail networks and integrated community hubs.

The Future Urban Structure Plan for Clyde Creek precinct reflects the residential nature of the precinct, and provides for the protection of biodiversity and heritage values in the area. The prominent landform of the precinct, Clyde Creek, will form the key environmental, recreational and community spine of the future urban area.

The significant biodiversity that exists within the Clyde Creek corridor has been recognised through the conservation and enhancement of the Growling Grass Frog Category 1 habitat area. Planning for the PSP has integrated the stormwater drainage design and open space/trails network with requirements for the design of Growling Grass Frog ponds and foraging areas in the Clyde Creek corridor. The Growling Grass Frog Conservation Area planned for Clyde Creek will also provide a sub-regional location for the preservation of aboriginal cultural heritage sites within the creek corridor.

The post-contact heritage values of the Clyde Creek precinct have also been identified, and key elements are retained in the draft PSP. The existing heritage and character of Clyde Township has been an important factor in planning for the township's interface and connection with the Clyde major town centre.

2.2 Objectives

The following objectives describe the desired outcomes of the precinct's development, and guide the implementation of the vision.

IMAGE, CHARACTER, HERITAGE AND HOUSING

- | | |
|-----------|--|
| 01 | Achieve a diversity of streetscape and open space outcomes to enhance local character and amenity, establishing a landscape of connecting canopies along streets, parks and waterways. |
| 02 | Deliver a minimum of 13,900 new homes (16 dwellings net developable hectare overall precinct average). |
| 03 | Recognise the history, heritage and character of the Clyde area in a new urban environment through identifying and retaining European and Aboriginal Cultural Heritage elements within the precinct. |
| 04 | Promote housing choice through the delivery of a range of lot sizes capable of accommodating a variety of dwelling types. |
| 05 | Plan for the long-term protection of the significant heritage and character values of the Clyde Creek area in a new urban environment. |

TOWN CENTRES & EMPLOYMENT

- | | |
|-----------|---|
| 06 | Develop diverse local employment opportunities to meet the needs of existing and future residential populations. |
| 07 | Develop a series of town centres, each with a civic focus and the ability to adapt and evolve with the community. |
| 08 | Ensure the design of town centres is conducive to a range of commercial enterprises including start-up, small, and home-based businesses. |
| 09 | Encourage the provision of local convenience retail without compromising the functions and roles of nearby town centres. |

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OPEN SPACE & COMMUNITY FACILITIES

- O10** Deliver an integrated and linked network of local passive parks, active recreation reserves, and community infrastructure that meets the needs and aspirations of the new community.

BIODIVERSITY, THREATENED SPECIES & BUSHFIRE MANAGEMENT

- O11** Plan for the long-term conservation and enhancement of areas of biodiversity, including the Growling Grass Frog Conservation Area.
- O12** Ensure that bushfire protection measures are considered in the layout and development of the local street network.

TRANSPORT & MOVEMENT

- O13** Provide strong external connections to the surrounding road network to foster accessibility of the precinct.
- O14** Develop a slow-speed and permeable connector road network.

INTEGRATED WATER MANAGEMENT & UTILITIES

- O15** Deliver an integrated water management system that reduces reliance on reticulated potable water, increases the re-use of alternative water, minimises flood risk, ensures waterway health, and contributes towards a sustainable and green urban environment.

PRECINCT INFRASTRUCTURE PLAN & STAGING

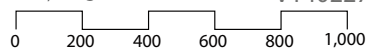
- O16** Ensure pre-development property structure does not impede the realisation of cohesive and integrated neighbourhoods.
- O17** Ensure that development staging is co-ordinated with the delivery of key local and state infrastructure.
- O18** Provide for a non government school site to meet a strategically justified need for Catholic primary and other non government education in the area.



- | | | | |
|-------------------------------------|---|--|---|
| precinct boundary | existing passive open space | primary arterial road (6 lane) | future urban |
| residential | local passive open space (unencumbered) | secondary arterial road (4 lane) | existing urban |
| major town centre | local active open space (unencumbered) | connector street | rail line & station |
| local town centre | drainage corridor 60m (encumbered) | high street - major town centre | clyde township area not included in the PSP |
| government school | drainage/retarding basins open space (encumbered) | access level 2 street | property boundary & number |
| potential non-govt school | tree reserve | access level 2 street - green link | |
| community facility | active open space (unencumbered) - existing | access level 1 street | |
| indoor sports facility | GGF conservation area (encumbered) | access level 2 street - left in / left out | |
| potential CFA location | quarry recommended separation distance (250m) | access level 2 street - green link w/ widen path | |
| heritage | | major town centre main street | |
| heritage building / existing school | | | |

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2.3 Summary land budget

The Net Developable Area (NDA) is calculated by deducting the land requirements for major roads, servicing, community facilities and open space from the overall precinct area. The estimated NDA for the precinct is 866 hectares representing approximately 75% of the PSP area.

State Planning Policy currently aims to achieve a minimum of 15 dwellings per hectare of NDA. This PSP is expected to exceed the minimum dwelling density and yield delivering approximately 13,900 dwellings with an average density of 16 dwellings per hectare of NDA.

An average household size of 2.8 persons for conventional density housing (based on Victoria in Future 2012) is used to estimate the future population of the PSP area. On this basis the future population of the PSP is estimated to be approximately 38,800 residents.

The table below sets out the land area and summary lot yield for various uses in the future urban structure.

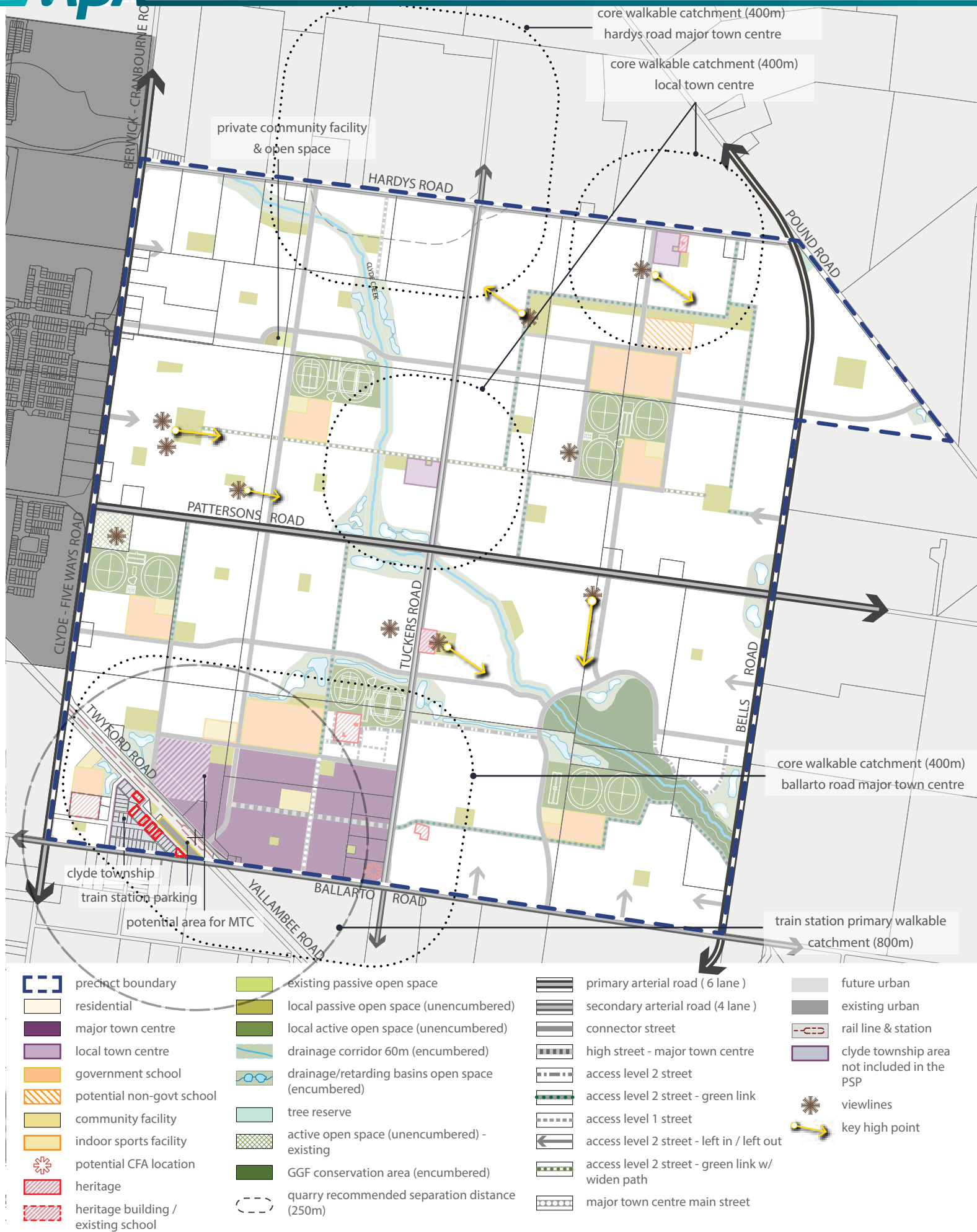
Table 1 Summary land use budget

Description	PSP 1054 Clyde Creek		
	HECTARES	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	1,153.90	100.0%	
Transport			
4 Lane Arterial Road / Widening / Flaring	9.16	0.79%	1.06%
6 Lane Arterial Road / Widening / Flaring	18.33	1.59%	2.13%
Existing Road Reserve Part of Proposed Arterial (6 lane)	22.98	1.99%	2.67%
Existing Road Reserve Part of Proposed Arterial (4lane)	6.38	0.55%	0.74%
Berwick Cranbourne - Clyde Fiveways Road existing Reservation(outside of PSP)	0.00	0.00%	0.00%
Thompsons Road existing Reservation (Outside of PSP)	0.00	0.00%	0.00%
Tree reserve	0.00	0.00%	0.00%
Rail Corridors / Easements	5.66	0.49%	0.66%
Sub-total Transport	62.51	5.4%	7.25%
Community			
Community Facilities	5.00	0.43%	0.58%
Indoor Recreation facilities	1.50	0.13%	0.17%
Government Education	32.60	2.83%	3.78%
Non Government Education	3.50	0.30%	0.41%
Sub-total Education	42.60	3.7%	4.94%
Open Space			
Encumbered Open Space Available for Recreation			
Power Easement	0.00	0.00%	0.00%
Waterway Corridor/Wetland / Retarding	64.39	5.58%	7.47%
Desalination Pipe Easement+ gap between road and desal easement	0.00	0.00%	0.00%
Heritage (Aboriginal)	0.00	0.00%	0.00%
Heritage (Post Contract)	5.03	0.44%	0.58%
Conservation (EPBC)	22.16	1.92%	2.57%
Sub-total Encumbered Open Space Available for Recreation	91.58	7.94%	10.63%
Unencumbered Local Open Space			
Local Sportsfields (active open space)	51.20	4.4%	5.94%
Local Parks (passive open space)	34.26	3.0%	3.98%
Sub-total Unencumbered Local Open Space	85.47	7.4%	9.92%
Other Unencumbered Open Space			
Existing local Parks (passive open space)	3.18	0.3%	0.37%
Regional Sportsfields (active open space)	0.00	0.0%	0.00%
Sub-total	3.18	0.28%	0.37%
Sub-total other Unencumbered Open Space	88.65	7.7%	10.29%
Subtotal Open Space Available for Recreation	180.24	15.6%	20.92%
Other			
Existing Clyde Township RZ1 Area	6.38	0.55%	0.74%
Sub Station	0.00	0.00%	0.00%
Sub-total	6.38	0.55%	0.74%
TOTAL NET DEVELOPABLE AREA - (NDA) Ha	861.71	74.68%	
NET DEVELOPABLE AREA - RESIDENTIAL (NDAR) Ha	861.71	74.68%	

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Description	PSP 1054 Clyde Creek	
Residential Local Open Space (expressed as % of NDAR)	Hectares	% of NDAR
Local Sportsfields (active open space)	51.20	6.00%
Local Parks (passive open space)	34.26	4.01%
Sub-total	85.47	10.01%
Total Open Space	85.47	10.01%

Description	PSP 1054 Clyde Creek		
Residential	NDA (Ha)	Dwell / NDHa	Dwellings
Standard Density	809.77	16	13,019
Local Town Centre	3.79	10	38
Major Town Centre	48.15	15	722
Totals Residential Yield Against NDA	861.71	15.99	13,779
Anticipated population @ 2.8 persons per dwelling			38,581



3.0 IMPLEMENTATION

3.1 Image, character, heritage and housing

3.1.1 Image and character

IMAGE AND CHARACTER

REQUIREMENTS									
R1	<p>Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity and not exceeding the guidance below unless otherwise agreed by the responsible authority:</p> <table> <tr> <th>AVERAGE INTERVAL</th><th>TREE SIZE</th></tr> <tr> <td>8 – 10 metres</td><td>Small trees (less than 10 metre canopy)</td></tr> <tr> <td>10 – 12 metres</td><td>Medium trees (10 – 15 metre canopy)</td></tr> <tr> <td>12 – 15 metres</td><td>Large trees (Canopy larger than 15 metres)</td></tr> </table>	AVERAGE INTERVAL	TREE SIZE	8 – 10 metres	Small trees (less than 10 metre canopy)	10 – 12 metres	Medium trees (10 – 15 metre canopy)	12 – 15 metres	Large trees (Canopy larger than 15 metres)
AVERAGE INTERVAL	TREE SIZE								
8 – 10 metres	Small trees (less than 10 metre canopy)								
10 – 12 metres	Medium trees (10 – 15 metre canopy)								
12 – 15 metres	Large trees (Canopy larger than 15 metres)								
R2	<p>Trees in parks and streets must be:</p> <ul style="list-style-type: none"> • Suitable for local conditions; and • Planted in modified and improved soil as required to support tree longevity. 								
R3	<p>Street tree planting must use locally appropriate species and be consistent with any guidance provided on the relevant cross section within this Precinct Structure Plan unless otherwise approved by the responsible authority.</p>								
R4	<p>Key Green streets must be provided generally where shown on Plans 2, 4 and 7 as per the cross-section in Appendix 4.3.</p>								
GUIDELINES									
G1	<p>Street networks within subdivisions should be designed to maximise the number of connections and direct views to waterways, open space, and town centres.</p>								
G2	<p>Significant elements of the landscape and built form should be used as focal points for view lines along streets. Elements may include items such as public buildings and landmarks.</p>								
G3	<p>Retained windrows and significant trees should be located within the public domain, including parks and road reserves, unless otherwise approved by the responsible authority.</p>								
G4	<p>Street trees should be used consistently across neighbourhoods to reinforce movement hierarchy and local character.</p>								
G5	<p>A consistent suite of lighting and furniture should be used across neighbourhoods, appropriate to the type and role of street or public space, unless otherwise approved by the responsible authority.</p>								
G6	<p>Trees in streets and parks should be larger species wherever space allows (to facilitate continuous canopy cover).</p>								

3.1.2 Housing

HOUSING

REQUIREMENTS	
R5	<p>Residential subdivisions must deliver a broad range of lot sizes capable of accommodating a variety of housing types.</p>
R6	<p>Development must appropriately respond to the potential future Clyde railway station site and the future Principal Public Transport Network through the creation of opportunities for high-density residential development.</p>

R7	<p>Lots must front or side:</p> <ul style="list-style-type: none"> • Conservation areas. • Waterways and public open space. • Local access streets. • Connector roads. • The potential future Clyde railway line. • Arterial roads.
R8	<p>Subdivision applications must include indicative concept layouts for any lots identified for the future development of medium density, high density , or integrated housing that suitably demonstrate:</p> <ul style="list-style-type: none"> • Active interfaces with adjacent streets, open spaces and waterways. • Safe and effective vehicle and pedestrian access and internal circulation, as appropriate.
GUIDELINES	
G7	Development should demonstrate how the proposed subdivision will deliver a variety of housing types and lot sizes.
G8	Residential subdivision stages should provide across neighbourhoods a broad range of lot sizes capable of accommodating a variety of housing types as described in Table 2.
G9	Subdivision of land within a walkable distance of town centres and designated public transport routes should create a range of lot sizes suitable for the delivery of medium and higher density housing types listed in Table 2.
G10	<p>Specialised housing forms such as retirement living or aged care should be:</p> <ul style="list-style-type: none"> • Integrated into the wider urban structure. • Located in close proximity to town centres and community hubs. • Accessible by public transport.
G11	Lots capable of supporting conventional and lower density housing are encouraged closer to the Clyde Creek Corridor and Conservation Area.
CONDITIONS	
C1	<p>Ensuring the Small Lot Housing Code is an approved building envelope under Part 4 of the <i>Building Regulations 2006</i></p> <p>The Small Lot Housing Code incorporated into the <i>Casey Planning Scheme</i> is endorsed under this planning permit.</p> <p>The Small Lot Housing Code must be shown as a restriction (on a plan of subdivision certified under the <i>Subdivision Act 1988</i>) that is recorded on the register under the <i>Transfer of Land Act 1958</i> in relation to an allotment that is less than 300 square metres in area.</p>

Table 2 Lot size and housing type guide

The following table provides an indication of the typical range of lot sizes that support the delivery of a broad range of housing types.

HOUSING TYPES THAT MAY BE SUPPORTED	LOT SIZE CATEGORY (m ²)		
	LESS THAN 300m ²	301-600m ²	MORE THAN 600m ²
Small Lot Housing including townhouses and attached, semi-detached and detached houses			
Dual occupancies, duplexes			
Detached houses			
Multi-unit housing sites including terraces, row houses and villas			
Stacked housing including apartments, shop top living and walk up flats			

3.1.3 Heritage

REQUIREMENTS	
R9	Any subdivision and/or development of land surrounding a heritage site identified under the Heritage Overlay in the Casey Planning Scheme must have regard to the heritage significance of the site and provide a sensitive interface.
R10	Development of land close to heritage sites identified under the Heritage Overlay in the Casey Planning Scheme must ensure that heritage becomes a prominent component of the urban structure and is conveniently accessible to the wider community.
R11	Development of the Clyde Major Town Centre adjacent to the railway line and the potential future Clyde railway station site and any associated car parking for the station must take into account the impact of the development on the heritage significance of the existing Clyde Township.
R12	Development of parks, streets, and shared paths within or adjacent to a heritage site identified under the Heritage Overlay in the Casey Planning Scheme must be developed in accordance with the principles outlined in Appendix 4.7 and the relevant incorporated document relating to the heritage site as contained in the Schedule to the Heritage Overlay in the Casey Planning Scheme.
GUIDELINES	
G12	Any development of a heritage site identified under the Heritage Overlay in the Casey Planning Scheme should be in accordance with the relevant incorporated document relating to the heritage site as contained in the Schedule to the Heritage Overlay in the Casey Planning Scheme.

3.2 Town centres and employment

3.2.1 Town Centres

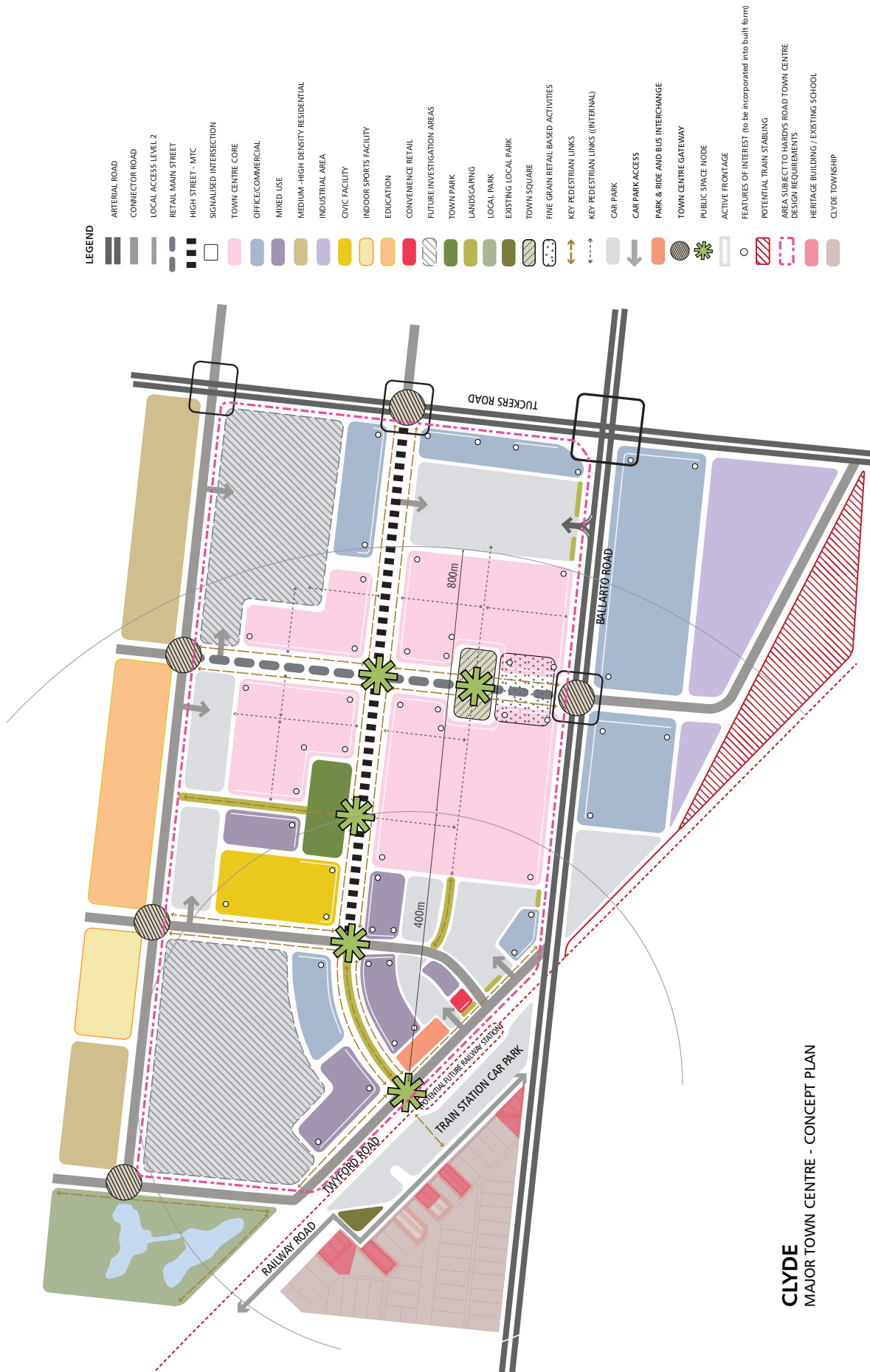
Table 3 Town centre hierarchy

TOWN CENTRE	RETAIL FLOOR SPACE	COMMERCIAL FLOOR SPACE	LOCATION AND USES
Clyde Major Town Centre	40-50,000 m ²	40-50,000 m ²	Located to service both Thompsons Road PSP and Casey Fields South PSP, and the PSP 1054 population. Should include a full range of community uses, business, and residential.
Hardys Road Local Town Centre	5,000 m ²	1,000 m ²	Located to service residents in Thompsons Road PSP as well as PSP 1054..
Tuckers Road Local Town Centre	5,000 m ²	1,000 m ²	Centrally located to service residents in PSP 1054.

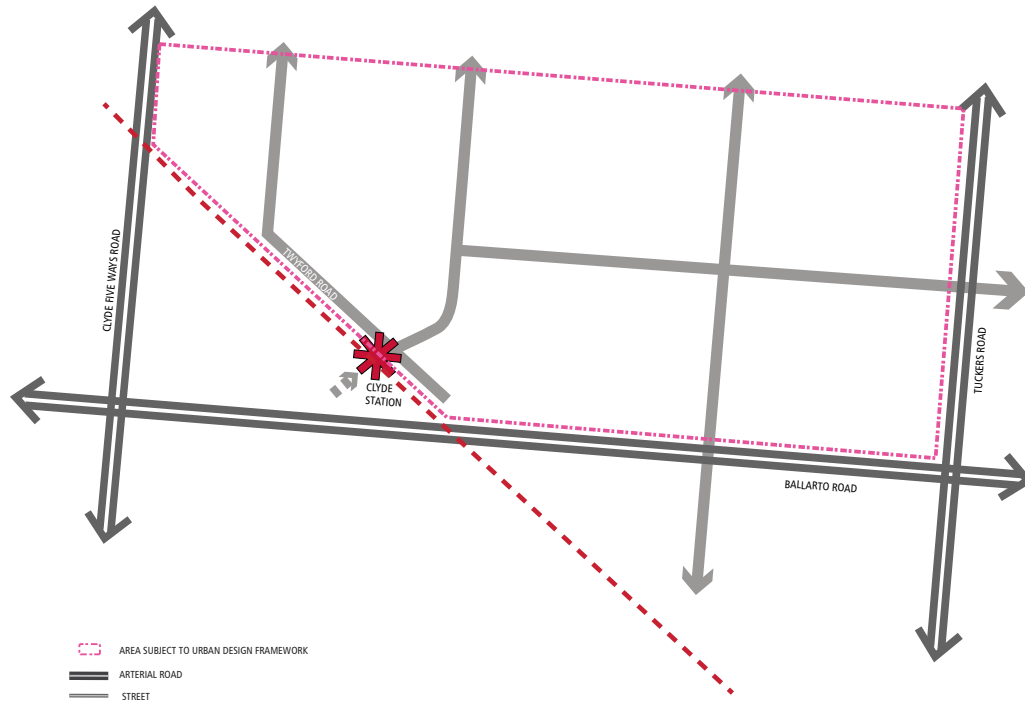
Table 4 Anticipated employment creation

LAND USE	MEASURE	JOBS	QTY IN PSP	EST JOBS
Council Kindergarten	Jobs/centre	10	5	50
Community Centre	Jobs/centre	10	2	20
Govt Primary School	Jobs/school	40	5	200
Govt Secondary School	Jobs/school	90	2	180
Non-govt Primary School	Jobs/school	40	1	40
Clyde Road Major Town Centre	Jobs/centre	5,600	1	5,600
Local Town centres (retail and commercial)	Jobs/centre	333	2	666
Private child care centre	Jobs/100 places	15	2	30
Home based business	Jobs/dwelling	0.05	13,900	695
TOTAL ESTIMATED				7,481

Figure 1 Clyde Major Town Centre Concept

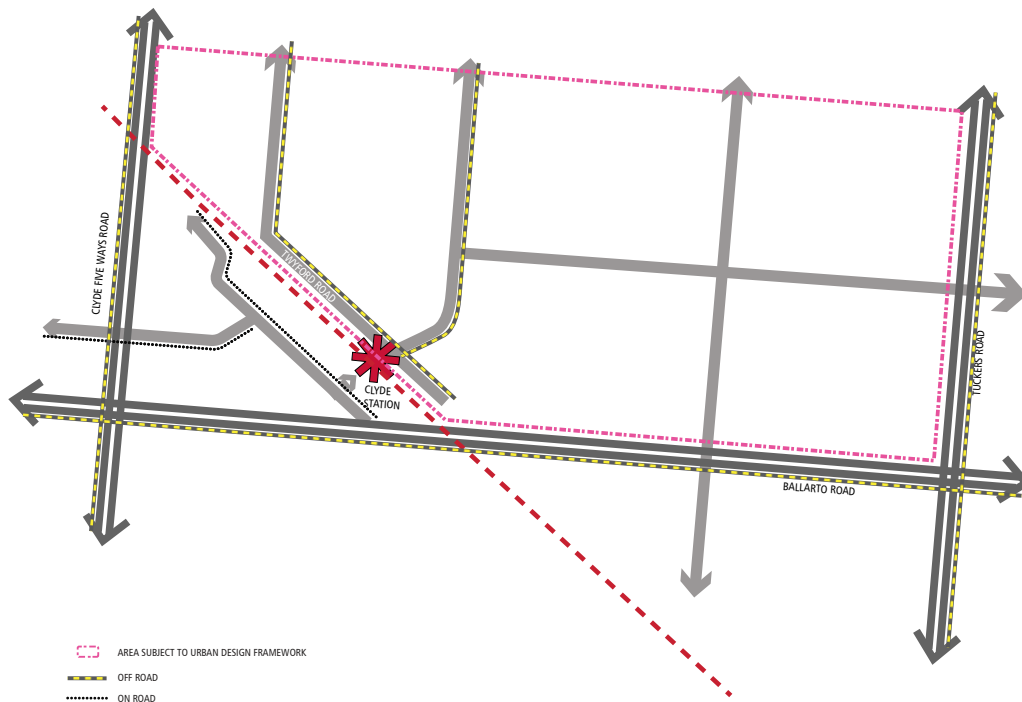


ORGANISING ELEMENTS



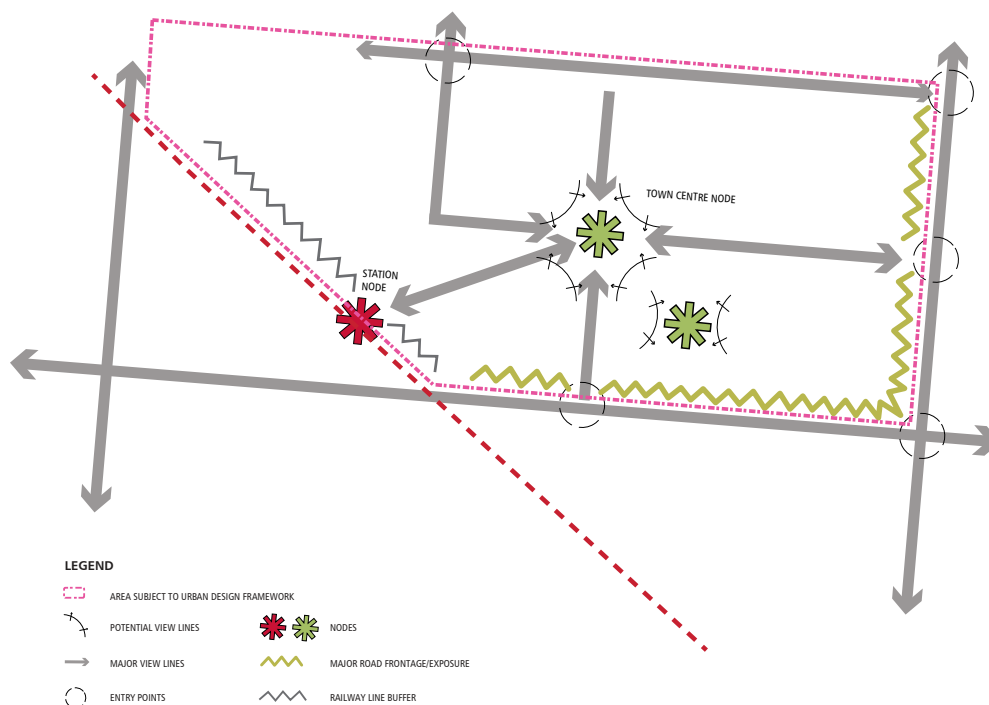
ROAD NETWORK

- Access to Tuckers Road.
- Bounded by an arterial road.
- Next to Clyde Train Station.
- Connection to proposed regional bus network.
- Future bus interchange within the Town Centre.
- Timing and staging of arterial roads.
- Provision of intersections allowing vehicle, pedestrian and cycle access into the Town Centre.



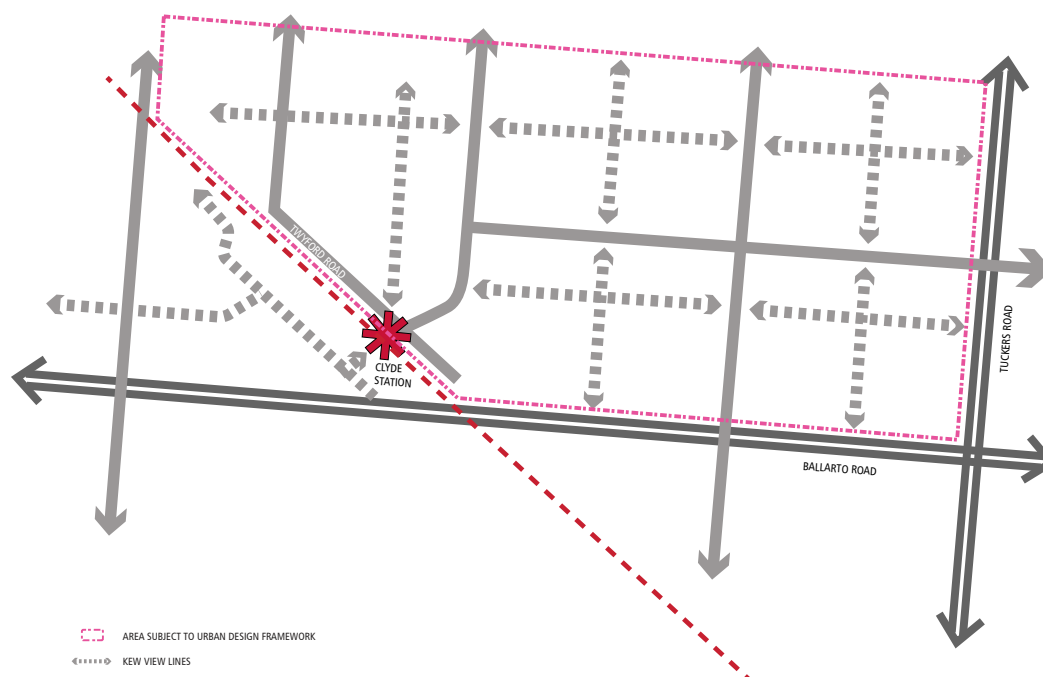
PEDESTRIAN AND CYCLE MOVEMENT

- Grid style urban layout to create a permeable Town Centre.
- Two way off road bike path network along arterial roads.
- A series of interconnected spaces which encourage an enjoyable and walkable Town Centre.
- Connecting the greater residential catchment to the Town Centre through dedicated pedestrian and cycle paths.
- Providing pedestrian and cycle access to the Town Centre across arterial roads.
- Pedestrian and cycle paths along connector roads, providing access to the Clyde Train Station.



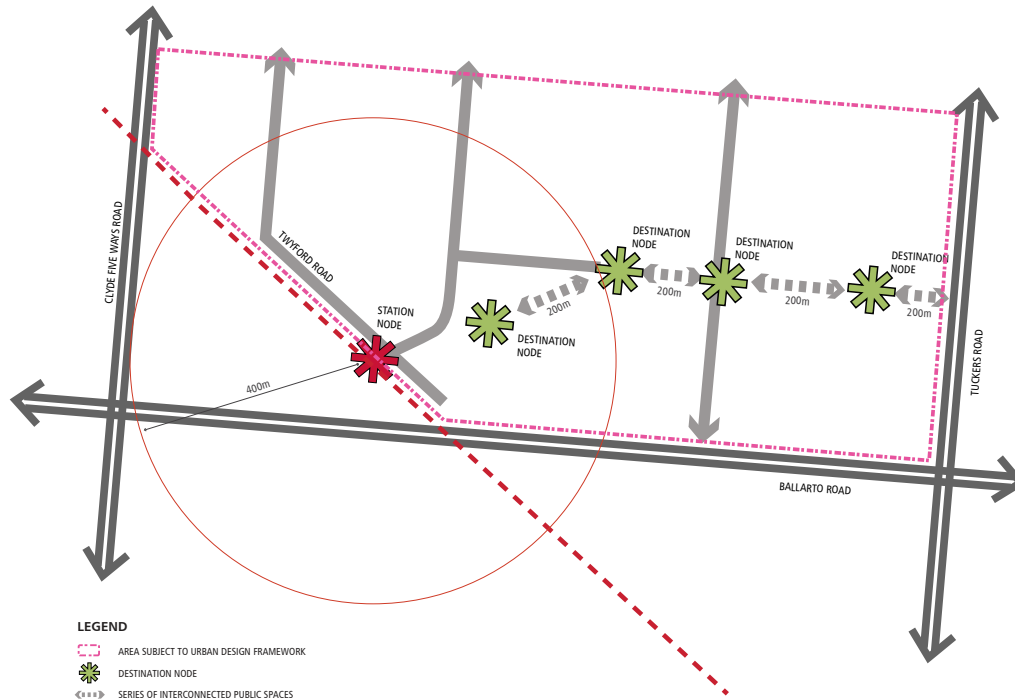
OPEN SPACE

- Strong links to Clyde Train Station.
- A series of public spaces within town centre linking to Clyde train station and other open space areas.
- Providing high amenity public spaces as settings for medium and high density residential and office outcomes.
- Connection to active open space and Leakes Road Reserve.
- Appropriate interfaces between the Town Centre, Ballarto Road and Bells Road.
- Appropriate edge and buffer distances around Ballarto Road and Tuckers Road.



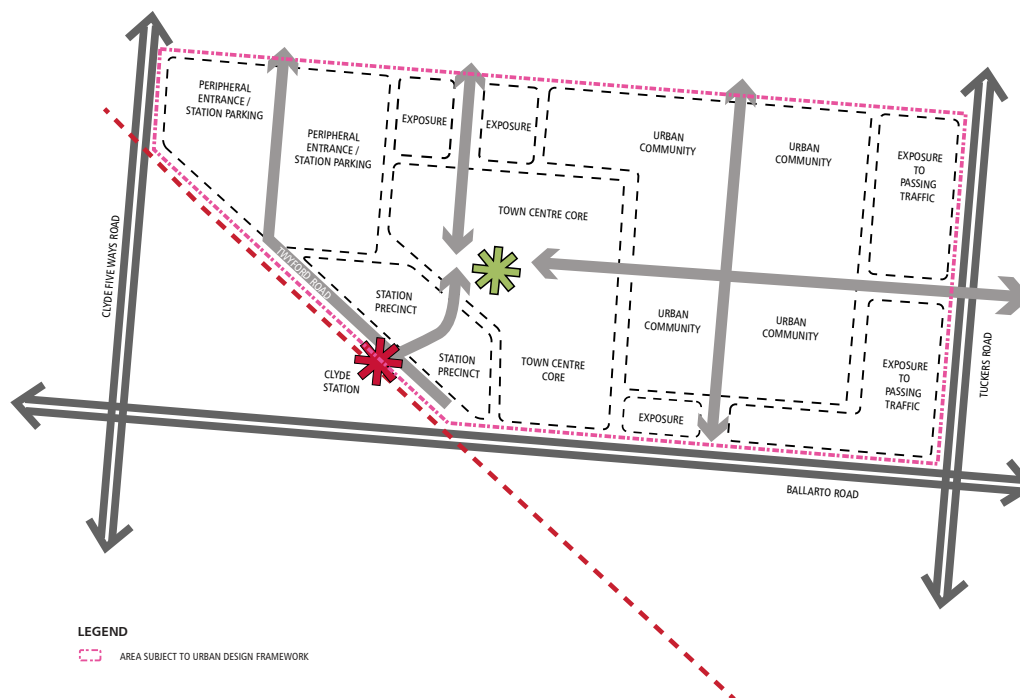
VIEWS AND VISTAS

- Terminating view lines along street network with 'green' outlooks.
- Appropriate land uses and built form outcomes to maximise views and view lines.
- Maintaining views and vistas while the Town Centre develops in stages.
- Balancing use and location of iconic buildings with potential views and vistas.
- Ensuring hints of 'green' are viewed from major destinations within the Town Centre.



PLACEMAKING

- Creating a strong central meeting space for the community.
- Creating a series of public spaces each with a unique character and focus.
- Ensuring community gathering spaces are included with the first stage of development.
- Respecting the environmental and cultural history of the place.
- Creating an authentic character for a 'greenfield' Town Centre.
- Community ownership and participation in the staged development of the town centre.
- Staged development which ages and evolves appropriately.



CHARACTER PRECINCTS

- Maximising views, outlook and amenity of Ballarto Road and Tuckers Road.
- Creating a compact urban core which acts as the 'heart' of the centre and has a strong active and vibrant character.
- Building a pedestrian friendly civic precinct at the core of the Town Centre.
- High density residential communities which are situated in high amenity locations while being well connected to the activity of the Town Centre core.
- Appropriate interfaces between character areas.

Major Town Centre

REQUIREMENTS	
R13	<p>An Urban Design Framework Plan (UDF) must be prepared in consultation with the Metropolitan Planning Authority and approved by the responsible authority for the Clyde Major Town Centre prior to, or in conjunction with, the lodgement of any planning permit applications for subdivision, use and/or development for land within the boundary of the UDF shown in Figure 1. The UDF must address the following:</p> <ul style="list-style-type: none"> • A response to the Major Town Centre concept (Figure 1), related information included within Appendix 4.3, and the vision and objectives set out in this PSP. • Inclusion of land use appropriate to the centre's role and function including retail, commercial, office, medium and high density residential, education, and community space. • Integration of the potential future Clyde train station into the wider centre. • Interface with the Clyde Township heritage overlay area. • Creation of a permeable pedestrian and cyclist friendly road network. • Feedback received following consultation with infrastructure agencies including PTV and VicRoads. • Any relevant activity centre strategies or design guidelines prepared by the Victorian Government or Casey City Council. <p>Specifically, the UDF must:</p> <ul style="list-style-type: none"> • Demonstrate how the design of the centre integrates and connects with the surrounding residential neighbourhood and Clyde Township. • Demonstrate how the design of the centre allows for long-term evolution and growth. • Demonstrate how the design of the centre maximises the opportunities of its location within the south-eastern corridor and incorporates the objectives and strategies for transport and land use integration in the Casey Planning Scheme. • Outline the intended staging and indicative timing of development. • Set out clear and specific strategies, actions, and guidelines for the development of the centre that may be used as an assessment tool for future development applications within the centre. • Set out provisions for car parking including the location and design of parking areas and a demonstration of how off-street car parking has been minimised through efficiencies in the shared use of off-street facilities. • Set out arrangements for the provision of service areas for the deliveries and waste disposal, including access for larger vehicles and measures to minimise the impact on adjoining neighbourhoods. • Identify proposed access for bus services and bus priority measures where appropriate. • Include an overall landscape concept. • Demonstrate how the development of the interface with Clyde Township takes into account the heritage values of the township. • Explain how the UDF responds to feedback received following consultation with infrastructure agencies including VicRoads, the MPA and PTV and landowners within the major town centre. <p>The UDF may be prepared in stages for logical components of the major town centre where agreed by the responsible authority.</p> <p>All to the satisfaction of the Metropolitan Planning Authority and responsible authority.</p>
R14	Land use and development within the Clyde Major Town Centre must respond to the UDF prepared for the centre, relevant concept plan and key design elements shown in Figure 1, and must address the design principles and performance criteria outlined in Appendix 4.3.
R15	Development within the Clyde Major Town Centre must provide for convenient and safe access to the potential future Clyde railway station site.
GUIDELINES	
G13	Residential densities within the core walkable catchment of the Clyde Major Town Centre (as shown on Plan 4) should demonstrate that the development responds to the zone purpose of the applied Residential Growth Zone.

Local Town Centre

REQUIREMENTS	
R16	Land use and development within each Local Town Centre (as shown on Plan 4) must respond to the relevant concept plan and key design elements shown in Figures 2 and 3, and must address the design principles and performance criteria outlined in Appendix 4.3.
GUIDELINES	
G14	Residential densities within the core walkable catchment of the each Local Town Centre (as shown on Plan 4) should demonstrate that the development responds to the zone purpose of the applied Residential Growth Zone.

Figure 2 Tuckers Road Local Town Centre

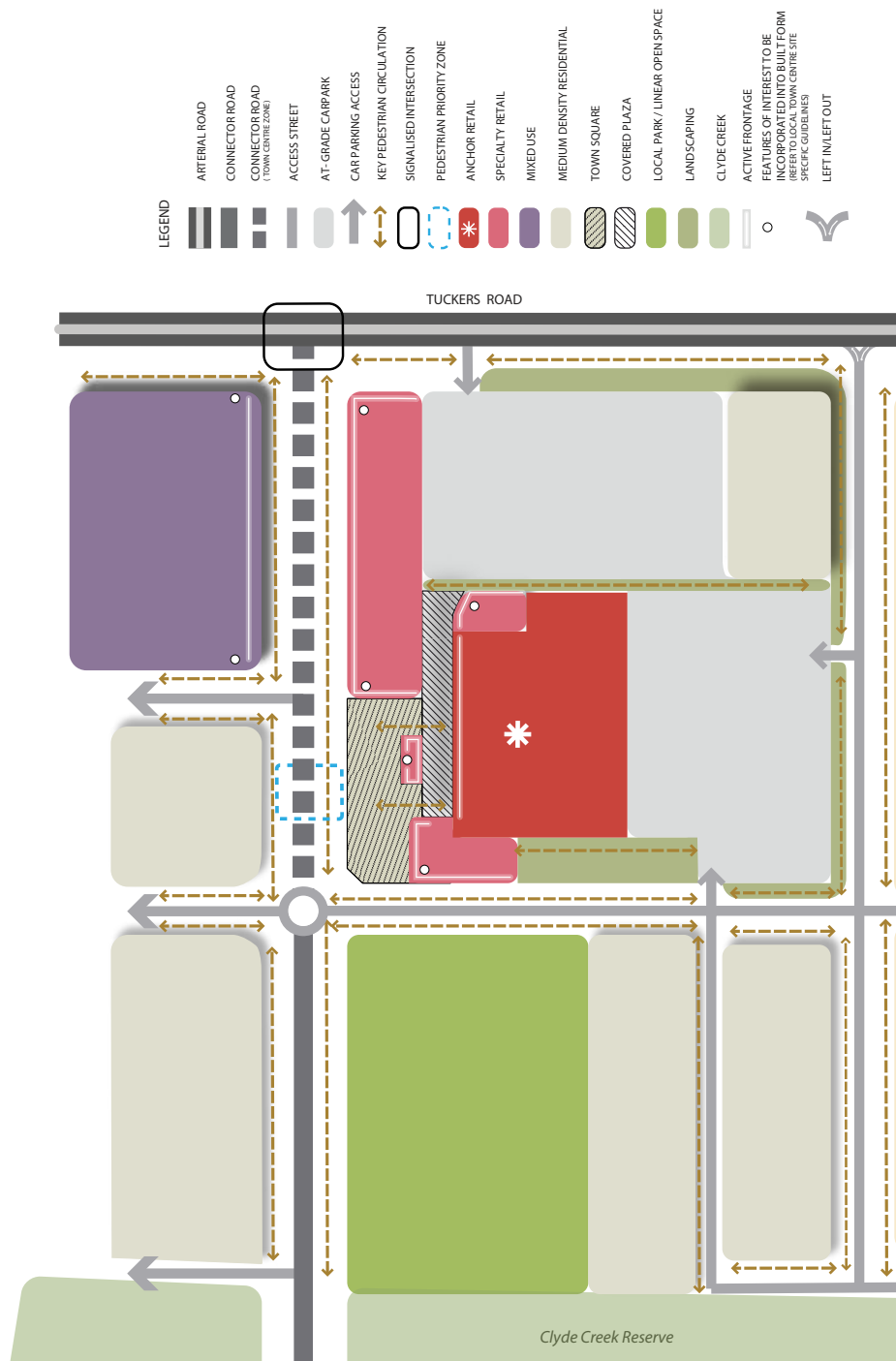
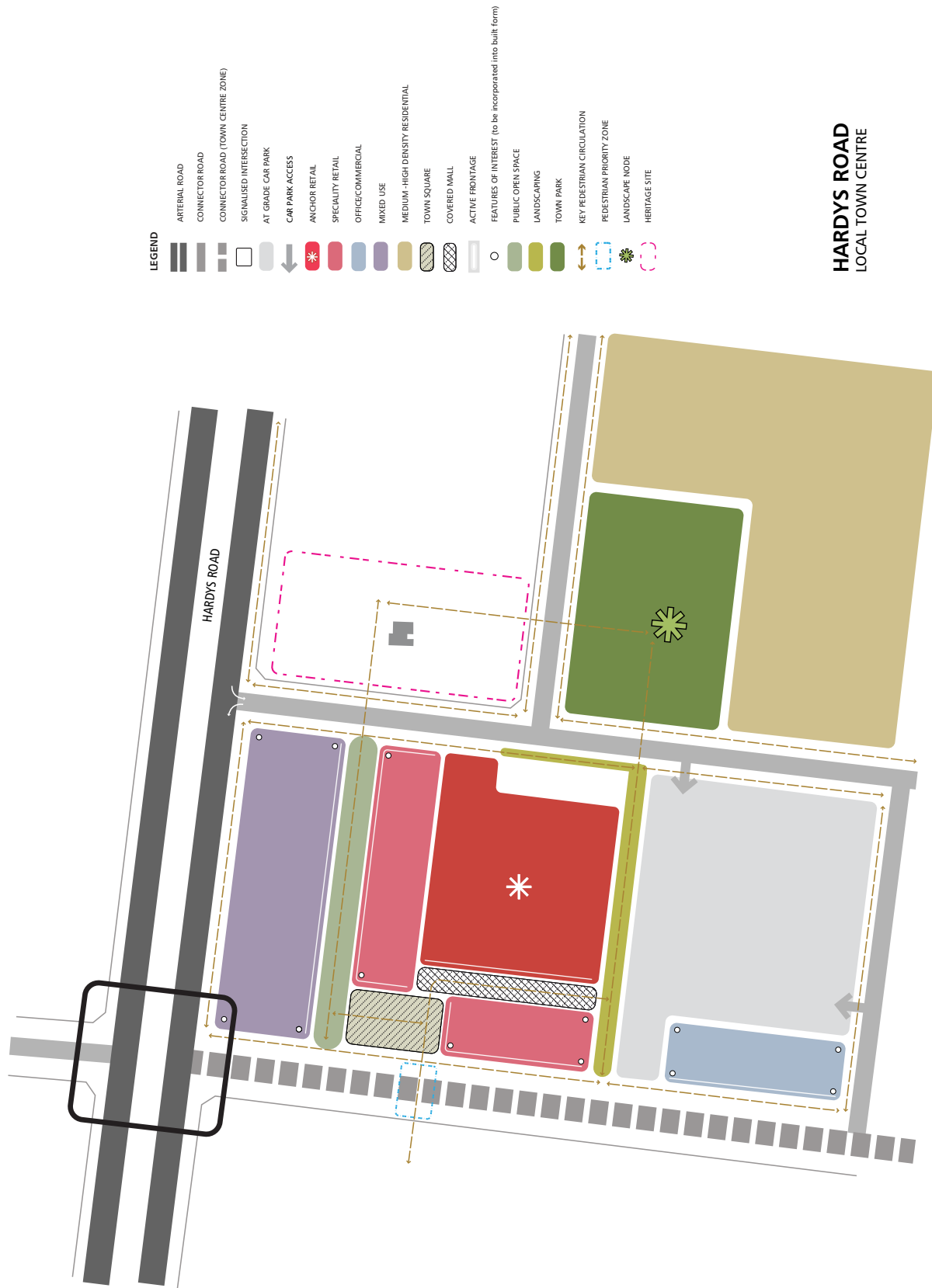


Figure 3 Hardys Road Local Town Centre



3.3 Open Space, Community Facilities and Education

3.3.1 Open Space

Table 5 Open Space Delivery Guide

PARK ID	AREA (HA)	TYPE	ATTRIBUTES	Location	RESPONSIBILITY
AOS1	9.5	Active Open Space	2 cricket ovals (3 soccer fields overlaid)	As shown on plan 5	CC
AOS2	13.2	Active Open Space	3 football ovals / cricket, 2 netball courts	As shown on plan 5	CC
AOS3	13.2 (9.4 new)	Active Open Space	2 new + football ovals/cricket + netball. To create 3 football/cricket + 2 netball	As shown on plan 5	CC
AOS4	8.4	Active Open Space	2 x cricket ovals (3 soccer fields overlaid)	As shown on plan 5	CC
AOS5	10.9	Active Open Space	2 football ovals / cricket	As shown on plan 5	CC
PO1	1.20	Passive open space	District	As shown on plan 5	CC
PO2	1.36	Passive open space	District	As shown on plan 5	CC
PO3	0.50	Passive open space	Neighbourhood	As shown on plan 5	CC
PO4	0.50	Passive open space	Neighbourhood	As shown on plan 5	CC
PO5	0.80	Passive open space	Neighbourhood	As shown on plan 5	CC
PO6	2.00	Passive open space	Neighbourhood	As shown on plan 5	CC
PO7	3.36	Passive open space	District	As shown on plan 5	CC
PO8	0.06	Civic square	Neighbourhood	As shown on plan 5	CC
PO9	0.31	Passive open space	Neighbourhood	As shown on plan 5	CC
PO10	1.20	Passive open space	Neighbourhood	As shown on plan 5	CC
PO11	2.00	Passive open space	Municipal	As shown on plan 5	CC
PO12	0.61	Passive open space	Neighbourhood	As shown on plan 5	CC
PO13	0.61	Passive open space	Neighbourhood	As shown on plan 5	CC
PO14	2.30	Passive open space	Municipal	As shown on plan 5	CC
PO15	0.55	Passive open space	Neighbourhood	As shown on plan 5	CC
PO16	0.50	Passive open space	Neighbourhood	As shown on plan 5	CC
PO17	0.70	Passive open space	Neighbourhood	As shown on plan 5	CC
PO18	0.06	Civic square	Neighbourhood	As shown on plan 5	CC
PO19	0.80	Passive open space	Neighbourhood	As shown on plan 5	CC
PO20	1.70	Passive open space	District	As shown on plan 5	CC
PO21	0.80	Passive open space	Neighbourhood	As shown on plan 5	CC
PO22	0.40	Passive open space	Neighbourhood	As shown on plan 5	CC
PO23	0.50	Passive open space	Neighbourhood	As shown on plan 5	CC
PO24	0.95	Passive open space	Neighbourhood	As shown on plan 5	CC
PO25	1.07	Passive open space	District	As shown on plan 5	CC
PO26	1.10	Passive open space	District	As shown on plan 5	CC
PO27	1.05	Passive open space	District	As shown on plan 5	CC
PO28	0.30	Passive open space	District	As shown on plan 5	CC
PO29	1.75	Passive open space	District	As shown on plan 5	CC
PO30	1.00	Passive open space	District	As shown on plan 5	CC
PO31	0.50	Passive open space	Neighbourhood	As shown on plan 5	CC
PO32	0.80	Passive open space	Neighbourhood	As shown on plan 5	CC
PO33	0.58	Civic square	Town Square/Urban Park	As shown on plan 5	CC
PO34	0.30	Civic square	Town Square/Urban Park	As shown on plan 5	CC
PO35	0.20	Passive open space	Neighbourhood	As shown on plan 5	CC
PO36	0.20	Passive open space	Neighbourhood	As shown on plan 5	CC
PO37	0.20	Existing park	Neighbourhood	As shown on plan 5	CC
BA1	n.a	Breakwater area 1	Maintenance/shared path 3 metres and walking trails along Clyde Creek.	As shown on plan 5	MWC
BA2	n.a	Breakwater area 2	Maintenance/shared path 3 metres and walking trails along Clyde Creek. Grading of Clyde Creek to take in consideration the adjacent open space.	As shown on plan 5	MWC
BA3	n.a	Breakwater area 3	Maintenance/shared path 3 metres around the large retarding basin and walking trails along Clyde Creek .	As shown on plan 5	MWC
BA4	n.a	Breakwater area 4	Outside the GGF conservation area with maintenance/shared path 3 metres and walking trails.	As shown on plan 5	DEPI/MWC
IRF	4	Indoor recreation facility	TBC	As shown on plan 5	CC

CC = City of Casey, MWC= Melbourne Water Corporation, DEPI = Department of Environment and Primary Industries



- | | | | |
|--|---|--|------------------------------------|
| | precinct boundary | | community facility |
| | local passive open space (unencumbered) | | indoor sports facility |
| | passive open space catchment (400m) | | access level 2 street - green link |
| | local active open space (unencumbered) | | future urban |
| | active open space catchment (1000m) | | existing urban |
| | 60m drainage corridor (encumbered) | | POS / AOS park ID |
| | drainage/retarding basins open space (encumbered) | | breakwater area 1 |
| | active open space (unencumbered) - existing | | breakwater area 2 |
| | GGF conservation area (encumbered) | | breakwater area 3 |
| | | | breakwater area 4 |

plan 5_open space & community facilities
clyde creek precinct structure plan

REQUIREMENTS	
R17	All public landscaped areas must be designed and constructed to enable practical maintenance and planted with species suitable to the local climate and soil conditions.
R18	All parks must be located, designed and developed in accordance with the relevant description in Table 5 unless otherwise approved by the responsible authority. The area of the park may vary so long as it remains inside the guidance for the relevant type of park. Where a park is smaller than that outlined in the table, the land must be added to another park or used to create a new park in addition to those outlined on Plan 5. Where a proposed park is larger than outlined in the table it may be accepted so long as it does not result in the removal of another park allocation.
R19	Where a passive open space shown on Plan 5 spans across multiple properties, the first development proponent to lodge a permit application must prepare an indicative concept master plan for the entire park unless otherwise agreed by the responsible authority.
R20	Design and layout of waterway corridors, conservation areas, and any other encumbered open space must maximise the potential for integration of recreation uses where this does not conflict with the primary function of the land.
R21	Parks and squares within town centres must be delivered via the Clause 52.01 passive open space contributions, as appropriate.
R22	Any fencing of open space, whether encumbered or unencumbered, must be low scale and visually permeable to facilitate public safety and surveillance.
GUIDELINES	
G15	Lots directly fronting open space must provide for a primary point of access from a footpath or shared path proximate to the lot boundary.
G16	Subject to being compatible with Table 5 and Appendix 4.6 parks and open space should contain extensive tree planting.
G17	In addition to the pedestrian crossings shown on Plan 8, development proponents should provide waterway crossings at intervals no greater than 400 metres.
G18	A proponent delivering a master plan for a local passive park that traverses multiple property ownerships should consult with the landowners of parcels covered by the park to ensure an integrated design.
CONDITIONS	
	Conditions for subdivision or building and works permits where land is required for public open space
C2	Land required for public open space as a local or district park, as set out in the Casey Fields South Residential Precinct Structure Plan or the <i>Clyde Development Contributions Plan</i> , must be transferred to or vested in Council at no cost to Council unless the land is funded by the <i>Clyde Development Contributions Plan</i> or contributes to satisfaction of required provision under Clause 52.01.

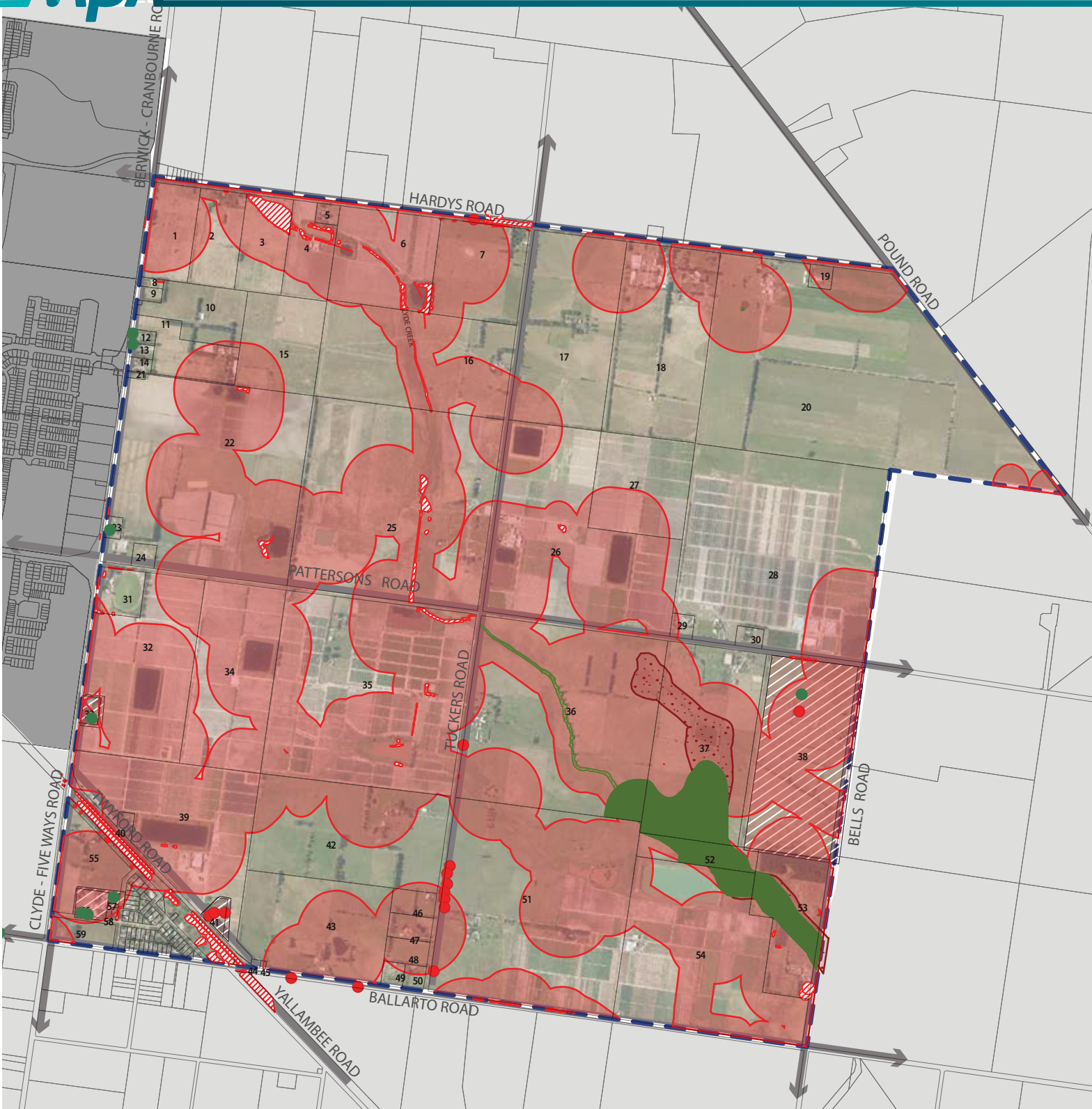
Passive Open Space Contributions – Residential

REQUIREMENTS	
R23	<p>Further to the public open space contribution required by Clause 52.01 of the <i>Casey Planning Scheme</i>, this provision sets out the amount of land to be contributed by each property in the precinct and consequently where a cash contribution is required in lieu of land.</p> <p>All land owners must provide a public open space contribution equal to 4% of the Net Developable Area (NDA) upon subdivision of land in accordance with the following:</p> <ul style="list-style-type: none"> Where land is required for unencumbered open space purposes as shown on Plan 3 and specified in Table 1 and is equal to 4% of NDA that land is to be transferred to Council at no cost. Where no land or less than 4% of NDA is shown Plan 3 and specified in Table 1, as required for unencumbered open space purposes a cash contribution is to be made to Council to bring the total open space contribution to a value equal to 4% of NDA of that site. Where land required for unencumbered open space purpose as shown on Plan 3 and specified in Table 1 is more than 4% of NDA, Council will pay an amount equivalent to the value of the additional land being provided by that proposed development.

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3.3.2 Community Facilities and Education

REQUIREMENTS	
R24	Schools and community centres must be designed to front, and be directly accessed from, a public street with car parks located away from the main entry.
R25	The cross section of any connector road separating a school and active open space or community facility must be designed to achieve reduced vehicle speed and provide designated pedestrian crossing points as required by the responsible authority.
R26	Where the responsible authority is satisfied that land shown as a non-government school site is unlikely to be used for a non-government school, that land may be used for an alternative purpose which is generally consistent with the surrounding land uses and the provisions of the applied zone.
GUIDELINES	
G19	Any educational or community use not shown on Plan 2 should be located within or proximate to a major town centre, local town centre or an existing community hub, as appropriate.
G20	Community centres which are located in a town centre should be designed to maximise efficiency of land use through the sharing and overall reduction of car parking.
G21	Community facilities, schools, and active recreation reserves which are co located should be designed to: <ul style="list-style-type: none"> • maximise efficiencies through the sharing of car parking and other complementary infrastructure. • maximise direct access and permeability for pedestrians and cyclists through and between facilities.
G22	School sites should be provided with three street frontages.
G23	The indicative layout of community facilities, schools, and open space as illustrated in Plan 5 may be altered where approved by the responsible authority.
G24	Any private childcare, medical, or similar facility, educational, community, or civic infrastructure not shown on Plan 2 should be located proximate to the Major Town Centre, any Local Town Centre, Local Convenience Centres, or nominated community hub, as appropriate.

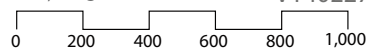


- precinct boundary
- growing grass frog category 1 habitat to be removed
- growing grass frog category 2 habitat to be removed
- habitat zones to be retained
- scattered trees to be retained
- properties requiring ST survey
- GGF conservation area (encumbered)

- scattered trees to be removed
- remnant patches to be removed
- future urban
- existing urban
- existing roads
- property number

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3.4 Biodiversity, Threatened Species and Bushfire Management

3.4.1 Biodiversity and Threatened Species

REQUIREMENTS	
R27	Development within the Clyde Creek GGF Conservation Area must be in accordance with the Concept Plan in Figure 4 and the relevant Conservation Management Plan (CMP) to the satisfaction of the Department of Environment & Primary Industries.
R28	Any public infrastructure or trails located within the Clyde Creek corridor must be designed to minimise disturbance to existing native vegetation; be placed generally in locations (as shown on Plan 8); and be consistent with any Conservation Management Plan applying to the land.
R29	<p>A frontage road must be provided between the Clyde Creek GGF Conservation Area or the associated drainage areas and adjacent development areas which must:</p> <ul style="list-style-type: none"> • Provide for controlled points of pedestrian access to the GGF Conservation Area. • Protect the GGF Conservation Area from vehicle access. • Contain street trees of indigenous species. • Not include plant species that could behave as environmental weeds including vigorous rhizomatic grasses.
GUIDELINES	
G25	Where located adjacent or nearby each other, the integration of linear and conservation open space with parks should be maximised.
G26	The layout and design of the waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks and the stormwater drainage system) should integrate with biodiversity and natural systems to the satisfaction of responsible authorities.
G27	Landscaping adjacent to retained indigenous vegetation and waterways should be complementary to conservation objectives and should use indigenous planting where appropriate.
G28	Street trees and public open space landscaping should contribute to habitat for indigenous fauna species, in particular arboreal animals and birds, where practical.
CONDITIONS	
C3	<p>Kangaroo Management Plan</p> <p>Prior to the commencement of any works in a stage of subdivision a Kangaroo Management Plan must be submitted for approval to the Department of Environment & Primary Industries. The plan must include:</p> <ul style="list-style-type: none"> c. Strategies (e.g. staging) to avoid land locking Kangaroos; and d. Management solutions and action to respond to their containment in an area with no reasonable likelihood of their continued safe existence.
C4	<p>Habitat compensation</p> <ul style="list-style-type: none"> • Before subdivision, the construction of a building or the construction or carrying out of works on land starts, offsets for the loss or deemed loss of native vegetation and threatened species habitat must be secured in accordance with the <i>Biodiversity Conservation Strategy for Melbourne's Growth Corridors</i> (Department of Environment and Primary Industries, 2013) and <i>Habitat compensation under the Biodiversity Conservation Strategy</i> (Department of Environment and Primary Industries, 2013), to the satisfaction of the Secretary to the Department of Environment and Primary Industries.
C5	<p>Salvage and translocation</p> <p>The <i>Salvage and Translocation Protocol for Melbourne's Growth Corridors</i> (Melbourne Strategic Assessment) (Department of Environment and Primary Industries, 2013) must be implemented in the carrying out of development to the satisfaction of the Secretary to the Department of Environment and Primary Industries.</p>



figure 4 clyde creek GGF
conservation area concept plan

NOTES:

1. The conservation zone provides maximum protection for the most important areas of habitat for the Growling Grass Frog, as well as other wetland habitats and terrestrial foraging habitat for the Growling Grass Frog,
2. The conservation zone includes existing and proposed dedicated Growling Grass Frog wetlands and other important wetland habitats, fringing terrestrial zones, critical terrestrial foraging habitat and dispersal routes, existing native vegetation, and mown/slashed short grass, sparse trees, shrubs and grasses, potentially suitable wetlands habitats and existing native vegetation.
3. The Water Management Zone may provide for the construction and management of stormwater treatment infrastructure, including wetlands, swales and sediment ponds, to the satisfaction of DEPI.
4. Infrastructure or works, other than shown in this plan or associated with the conservation of the Growling Grass Frog or native vegetation, are not suitable within the Conservation Zone unless approved by DEPI.
5. Infrastructure associated with low intensity passive recreation, such as built structures, hard surfaces, paths, lighting and mulched areas, must be placed a minimum of 30m from the edge of the Conservation Zone and outside the tree protection zone of scattered trees, unless shown on the plan. Lighting must be designed and baffled to prevent light spill and glare into this zone.
6. Any planting and revegetation must be consistent with DEPI's requirements.
7. Existing native vegetation must be protected and retained unless otherwise approved by DEPI.
8. A Fire Management Plan is to be prepared for the conservation area to the satisfaction of the Country Fire Authority.
9. Drainage from stormwater treatment infrastructure must be designed to minimise impacts on the biodiversity values of the conservation area.
10. The conservation area is to be designed and managed as a 'dog on-lead' area.

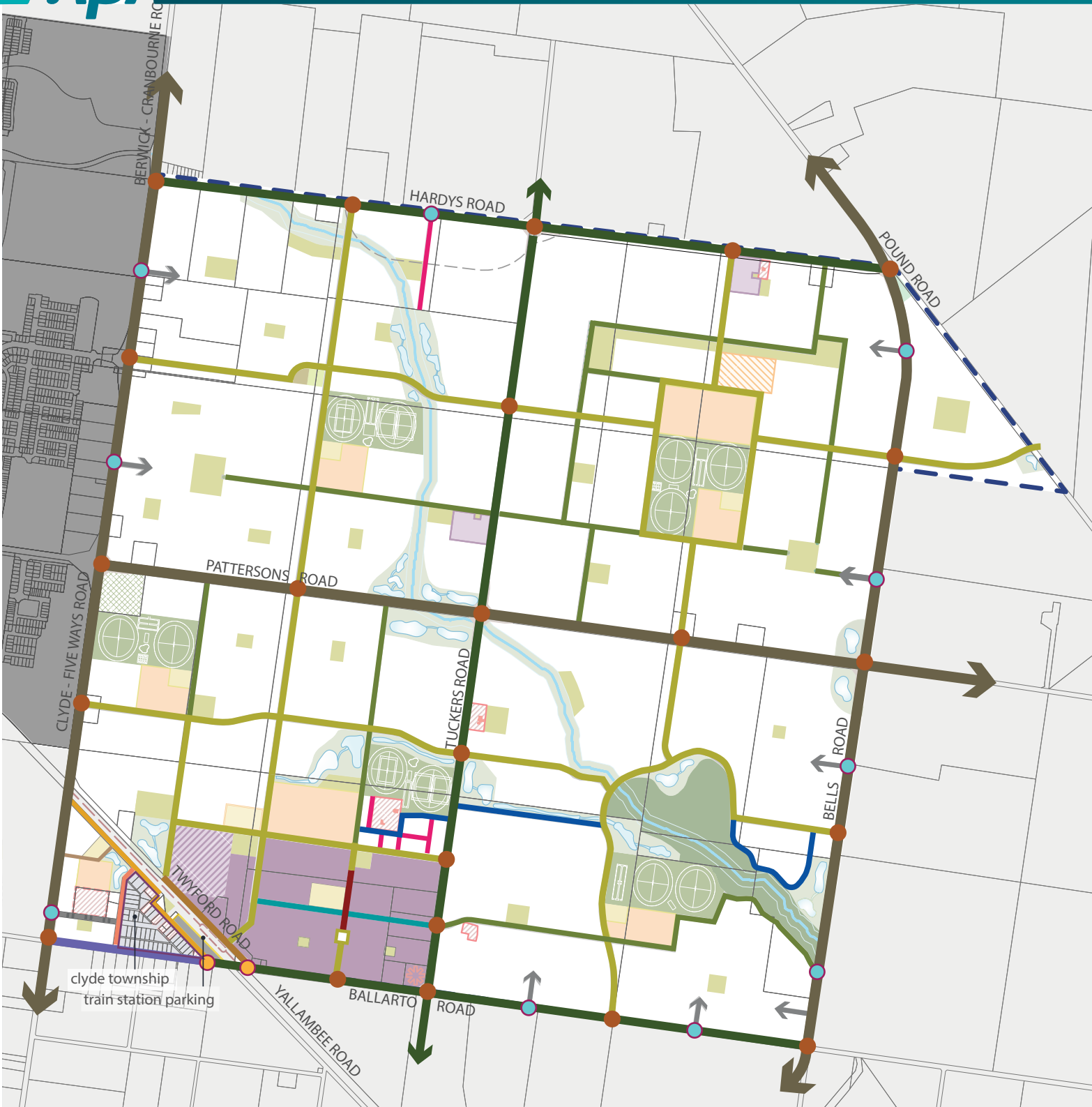
C6	<p>Land Management Co-operative Agreement (for land containing a conservation area)</p> <p>Before development of land starts, an agreement must be entered into with the Secretary to the Department of Environment and Primary Industries under section 69 of the <i>Conservation Forests and Lands Act 1987</i> to be registered on the title of the land, which must provide for the conservation and management of the land including any land not to be developed, and may include any matter that that such an agreement may contain under the <i>Conservation Forests and Lands Act 1987</i>.</p> <p>Before the development of land starts, an application must be made to the Registrar of Titles to register the agreement on the title to the land.</p> <p>The owner must pay the reasonable costs of the Secretary to the Department of Environment and Primary Industries in the preparation, execution and registration of the agreement.</p> <p>The requirement to enter an agreement described above does not apply to land if any lot or part of a lot within a Conservation Area identified in the Precinct Structure Plan:</p> <ul style="list-style-type: none"> • is identified in a Precinct Structure Plan as public open space and is vested, or will be vested, in the council as a reserve for the purposes of public open space; or • is identified in a Precinct Structure Plan as a drainage reserve and is vested, or will be vested, in Melbourne Water Corporation or the council as a drainage reserve; or • is within a Conservation Area identified in a Precinct Structure Plan for nature conservation and is vested, or will be vested, in the Secretary to the Department of Environment and Primary Industries for conservation purposes; or • is the subject of an agreement with the Secretary to the Department of Environment and Primary Industries to transfer or gift that land to: <ul style="list-style-type: none"> • the Secretary to the Department of Environment and Primary Industries; • the Minister for Environment and Climate Change; or • another statutory authority. <p>to the satisfaction of the Secretary to the Department of Environment and Primary Industries.</p>
C7	<p>Construction requirements</p> <p>Before the start of construction of a building or construction or carrying out of works within 15 metres of:</p> <ul style="list-style-type: none"> • a Conservation Area identified in the Precinct Structure Plan; • scattered trees or patches of native vegetation identified for retention in the Precinct Structure Plan; <p>a vegetation protection fence must be erected around each scattered tree, patch of native vegetation and the Conservation Area.</p> <p>The vegetation protection fence must:</p> <ul style="list-style-type: none"> • for a Conservation Area, be located at least 2 metres from the Conservation Area; or • for a scattered tree or patch of vegetation, be twice the canopy distance of the scattered tree or patch or at least 2 metres, whichever is the greater; and • be highly visible and be at least [] metres in height; and • remain in place for the period of construction. <p>Construction stockpiles, fill, machinery, excavation and works must:</p> <ul style="list-style-type: none"> • be located not less than 15 metres from a waterway; and • be located outside the vegetation protection fence; and • be constructed and designed to ensure that the Conservation Area, and any located trees identified in the Planning Scheme Provisions be retained are protected from adverse impacts during construction; and • not be undertaken if it presents a risk to any vegetation within a Conservation Area; and • be carried out under the supervision of a suitable qualified ecologist or arborist.

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C8	<p>Conservation Interface Areas</p> <p>Any permit granted for subdivision, to construct a building and to construct or carry out works, within 50 metres of a Conservation Area identified in the Precinct Structure Plan must comply with the conservation interface requirements specified in the Precinct Structure Plan to the satisfaction of the Secretary to the Department of Environment and Primary Industries, unless the permit granted contains the following conditions:</p> <p>Before the development starts, a Conservation Interface Plan must be submitted to and approved by the Secretary to the Department of Environment and Primary Industries which addresses how any development within 20 metres of any Conservation Area shown on a Precinct Structure Plan will be managed.</p> <p>The endorsed Conservation Interface Plan must be implemented to the satisfaction of the Responsible Authority.</p>
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3.4.2 Bushfire Management

	REQUIREMENTS
R30	<p>For the purpose of Clause 56.06-7, the requirements of the relevant fire authority are, unless otherwise approved by the CFA:</p> <ul style="list-style-type: none"> Constructed roads must be a minimum of 7.3m trafficable width where cars park on both sides, or: <ul style="list-style-type: none"> » A minimum of 5.4m in trafficable width where cars may park on one side only. » A minimum of 3.5m width no parking and 0.5m clearance to structures on either side, and if this width applies, there must be passing bays of at least 20m long, 6m wide and located not more than 200m apart. Roads must be constructed so that they are capable of accommodating a vehicle of 15 tonnes for the trafficable road width. The average grade of a road must be no more than 1 in 7 (14.4% or 8.1°). The steepest grade on a road must be no more than 1 in 5 (20% or 11.3°) with this grade continuing for no more than 50 metres at any one point. Dips on the road must have no more than 1 in 8 grade (12.5% or 7.1°) entry and exit angle. Constructed dead end roads more than 60 metres in length from the nearest intersection must have a turning circle with a minimum radius of 8m (including roll over curbs if they are provided).
R31	<p>Before the commencement of works for a stage of subdivision, a Construction Management Plan that addresses Bushfire Risk Management must be submitted to and approved by the responsible authority and the CFA. The Construction Management Plan must specify, amongst other things:</p> <ul style="list-style-type: none"> Measures to reduce the risk from fire within the surrounding rural landscape and protect residents from the threat of fire. A separation buffer, consistent with the separation distances specified in AS3959-2009, between the edge of the development and non-urban areas. How adequate opportunities for access and egress will be provided for early residents, construction workers and emergency vehicles.
R32	<p>Defendable space between conservation areas and development must not incur into the conservation areas.</p>



- | | | |
|---|---|---|
| precinct boundary | access level 2 | valetta street |
| primary arterial road | access level 2 - green link | oroya grove |
| secondary arterial road | access level 1 | railway road |
| ballarto road - clyde township | signalised intersection | future urban |
| connector street | pedestrian signals | existing residential |
| connector street train station / twyford rd | left in / left out | clyde township area not included in the PSP |
| high street - major town centre | access maintained in current location prior to construction of ballarto road railway bridge | |
| retail main street | | |

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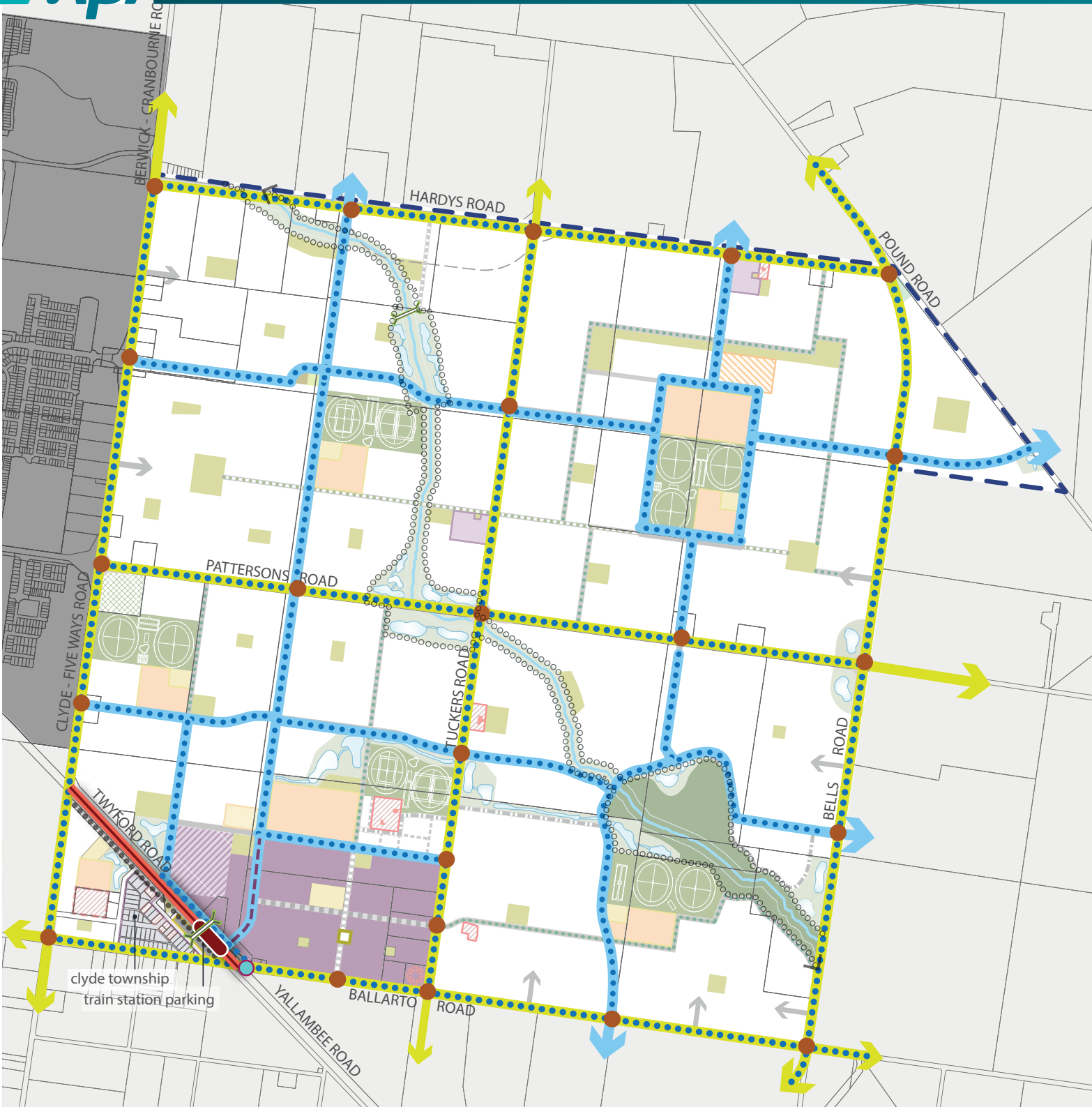
3.6 Transport and Movement

3.6.1 Public Transport

REQUIREMENTS	
R33	A road nominated on Plan 8 as a potential bus route is to be constructed (including partial construction where relevant) in accordance with the corresponding cross section in the PSP and with the Public Transport Guidelines for Land Use and Development.
R34	Any roundabouts on roads shown as 'bus capable' on Plan 8 must be constructed to accommodate ultra-low-floor buses in accordance with the <i>Public Transport Guidelines for Land Use and Development</i> .
R35	Bus stop facilities must be designed as an integral part of town centres and activity generating land uses such as schools, sports fields and employment areas.
CONDITIONS	
C9	<p>Unless otherwise agreed by Public Transport Victoria, prior to the issue of a Statement of Compliance for any subdivision stage, bus stops must be constructed, at full cost to the permit holder, as follows:</p> <ul style="list-style-type: none"> • Generally in the location identified by Public Transport Victoria; • In accordance with the Public Transport Guidelines for Land Use and Development with a concrete hard stand area, and in activity centres a shelter must also be constructed; • Be compliant with the <i>Disability Discrimination Act – Disability Standards for Accessible Public Transport 2002</i>; and • Be provided with direct and safe pedestrian access to a pedestrian path. <p>All to the satisfaction of Public Transport Victoria and the responsible authority.</p>

3.7.1 Walking and Cycling

REQUIREMENTS	
R36	<p>Design of all streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing:</p> <ul style="list-style-type: none"> • Footpaths of at least 1.5 metres on both sides of all streets and roads unless otherwise specified by the PSP. • Shared paths or bicycle paths where shown on Plan 8 or as shown on the relevant cross-sections in Appendix 4.4 or as specified by another requirement in the PSP. • Safe, accessible and convenient crossing points of connector roads and local streets at all intersections, key desire lines and locations of high amenity (e.g. town centre and open space). • Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and at regular intervals appropriate to the function of the road and public transport provision. • Pedestrian priority crossings on all slip lanes. • Safe and convenient transition between on and off-road bicycle networks. <p>All to the satisfaction of the coordinating roads authority and the responsible authority.</p>
R37	On a construction or engineering plan approved under a subdivision permit, specification of any bicycle path on a connector road must also be to the satisfaction of Public Transport Victoria.



- precinct boundary
- railway line and future station
- arterial road (bus capable)
- other road (bus capable)
- 2 way off-road bike lane & pedestrian path
- pedestrian bridge
- off-road shared path
- shared path along clyde creek

- signalised intersection
- pedestrian signals
- future urban
- existing urban
- left in / left out

1:22,500 @ A4

V140227

0 200 400 600 800 1,000

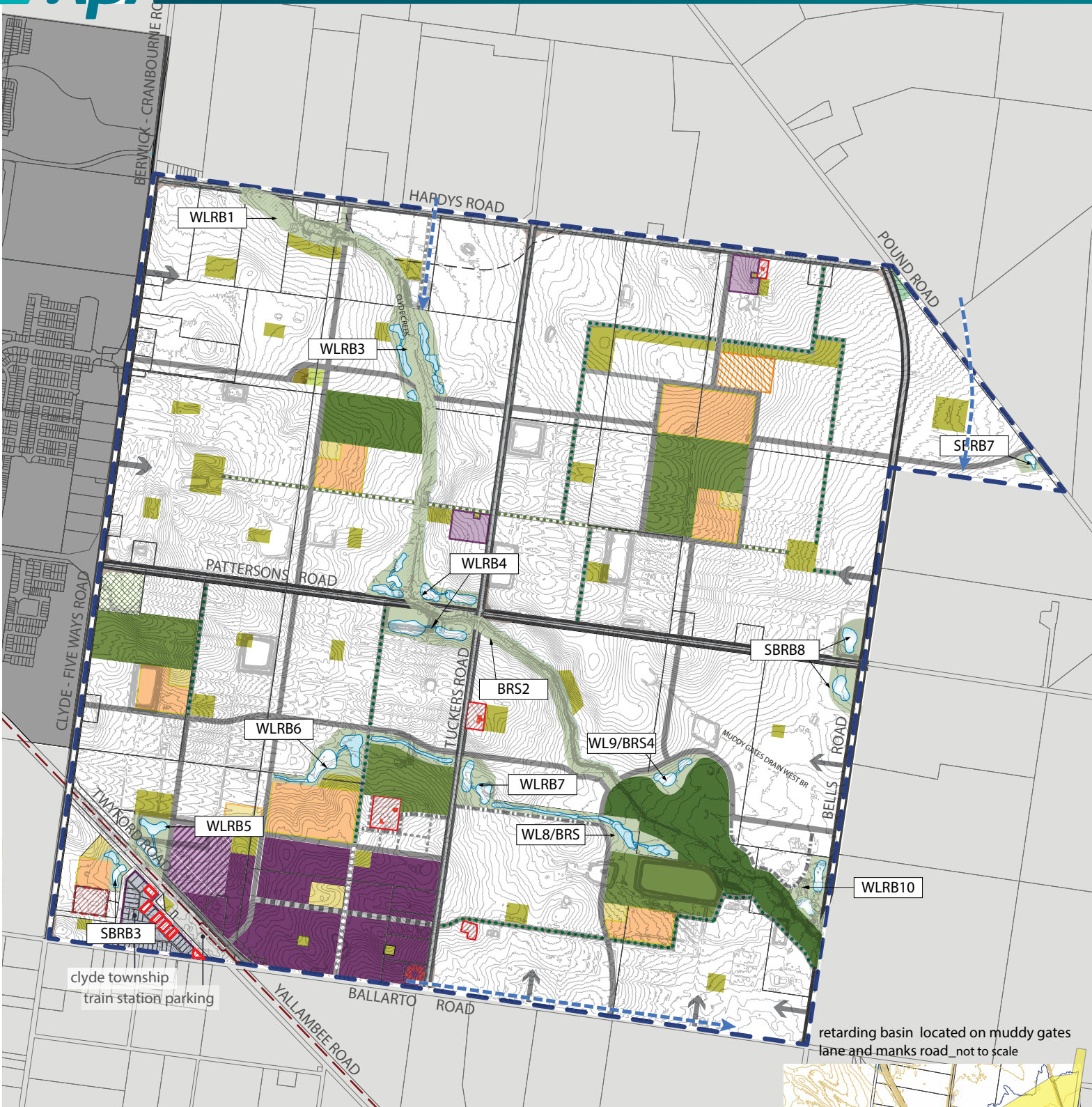


R38	<p>Shared and pedestrian paths along waterways must:</p> <ul style="list-style-type: none"> • Be delivered by development proponents consistent with the network shown on Plan 8. • Be above 1:10 year flood level with any crossing of the waterway designed to be above the 1:100 flood level to maintain hydraulic function of the waterway. • Be constructed to a standard that satisfies the requirements of Melbourne Water. • Where a shared path is to be delivered on one side of a waterway as outlined in Plan 8, a path is also to be delivered on the other side of the waterway but may be constructed to a lesser standard such as granitic gravel or similar granular material. <p>All to the satisfaction of the Melbourne Water and the responsible authority.</p>
R39	Shared and pedestrian paths as shown on Plan 8 must be delivered by development proponents.
R40	Bicycle parking facilities are to be provided by development proponents in convenient locations at key destinations such as parks and activity centres.
R41	The alignment of the off-road bicycle path must be designed for cyclists travelling up to 30 km/hr.
R42	Bicycle priority at intersections of minor streets and connector roads with dedicated off-road bicycle paths must be achieved through strong and consistent visual and physical cues and supportive directional and associated road signs.
GUIDELINES	
G29	In addition to the crossing locations shown on Plan 8, development proponents should provide formal pedestrian crossings of creeks and minor waterways at regular intervals of no greater than 400 metres where this level of connectivity is not already satisfied by the street network.
G30	Lighting should be installed along shared, pedestrian, and cycle paths linking key destinations, unless otherwise approved by the responsible authority.

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3.7.3 Road Network

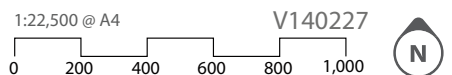
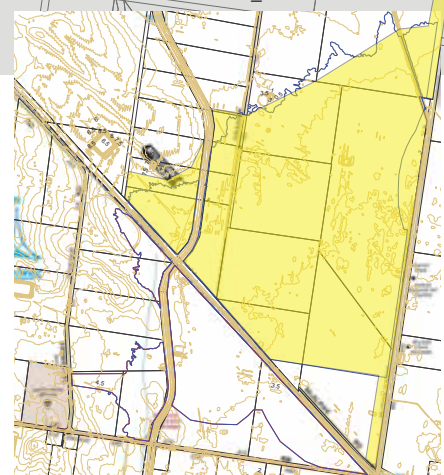
REQUIREMENTS	
R43	<p>The connector road network must:</p> <ul style="list-style-type: none"> • Provide for slow speed and permeable links. • Connect across arterial roads and traverses through the core of each square mile. • Facilitate efficient and direct pedestrian, cyclist, bus and vehicle movement. • Efficiently link pedestrians and cyclists to jobs and the public transport system.
R44	<p>Subdivision layouts must form a permeable street network that provides convenient access to local open space and allows for the effective integration with neighbouring properties.</p>
R45	<p>Approximately 30% of local streets (including connector streets) within a subdivision must apply an alternative cross section to the 'standard' cross section for these streets outlined in Appendix 4.4. Examples of potential variations are provided in Appendix 4.4, however others are encouraged including but not limited to:</p> <ul style="list-style-type: none"> • Varied street tree placement; • Varied footpath or carriageway placement; • Introduction of elements to create a boulevard effect; • Varied carriageway or parking bay pavement; and • Differing tree outstand treatments. <p>For the purposes of this requirement, changes to street tree species between or within streets do not constitute a variation.</p> <p>Alternative cross sections must ensure that:</p> <ul style="list-style-type: none"> • Minimum required carriageway dimensions are maintained to ensure safe and efficient operation of emergency vehicles on all streets as well as buses on connector streets. • The performance characteristics of standard cross sections as they relate to pedestrian and cycle use are maintained. • Relevant minimum road reserve widths for the type of street (illustrated in Appendix 4.4) are maintained, unless otherwise approved by the responsible authority.
R46	<p>Where a single street spans across multiple properties that street may consist of multiple cross sections so long as a suitable transition has been allowed for between each. Where that street has already been constructed or approved for construction to a property boundary, the onus is on the development connecting into that street to adopt a consistent cross-section until that suitable transition can be made.</p>
R47	<p>Convenient and direct access to the connector road network must be provided through neighbouring properties where a property does not otherwise have access to the connector network or signalled access to the arterial road network, as appropriate.</p>
R48	<p>Vehicle access to lots fronting arterial roads must be provided from a service road, local internal loop road or rear lane only, to the satisfaction of the coordinating road authority.</p>
R49	<p>Configuration of vehicle access to lots from a public street must ensure that there is sufficient separation between crossovers to allow for a minimum of one on-street car park for every two residential lots.</p>
R50	<p>Vehicle access to a lot that is six metres or less in width must be via rear laneway, unless otherwise approved by the responsible authority.</p>
R51	<p>Frontage roads are to be the primary interface provided between development and waterways shown on Plan 7. Public open space and allotments with direct frontages may be provided as a minor component of a waterway interface (excluding the GGF conservation area).</p>
R52	<p>Any connector road or access street abutting a school must be designed to achieve slow vehicle speeds and provide designated pedestrian crossing points as required by the responsible authority.</p>



- precinct boundary
- local active open space (unencumbered)
- drainage corridor 60m (encumbered)
- drainage/retarding basins open space (encumbered)
- tree reserve
- active open space (unencumbered) - existing
- growing grass frog conservation area
- access level 2 street - green link

- future urban
- existing urban
- rail line & station
- heritage
- pipe location

Stormwater quality treatment of retardation assets shown on the plan are subject to confirmation through preparation of MWC Development Service Schemes and through detailed design to the satisfaction of Melbourne Water.



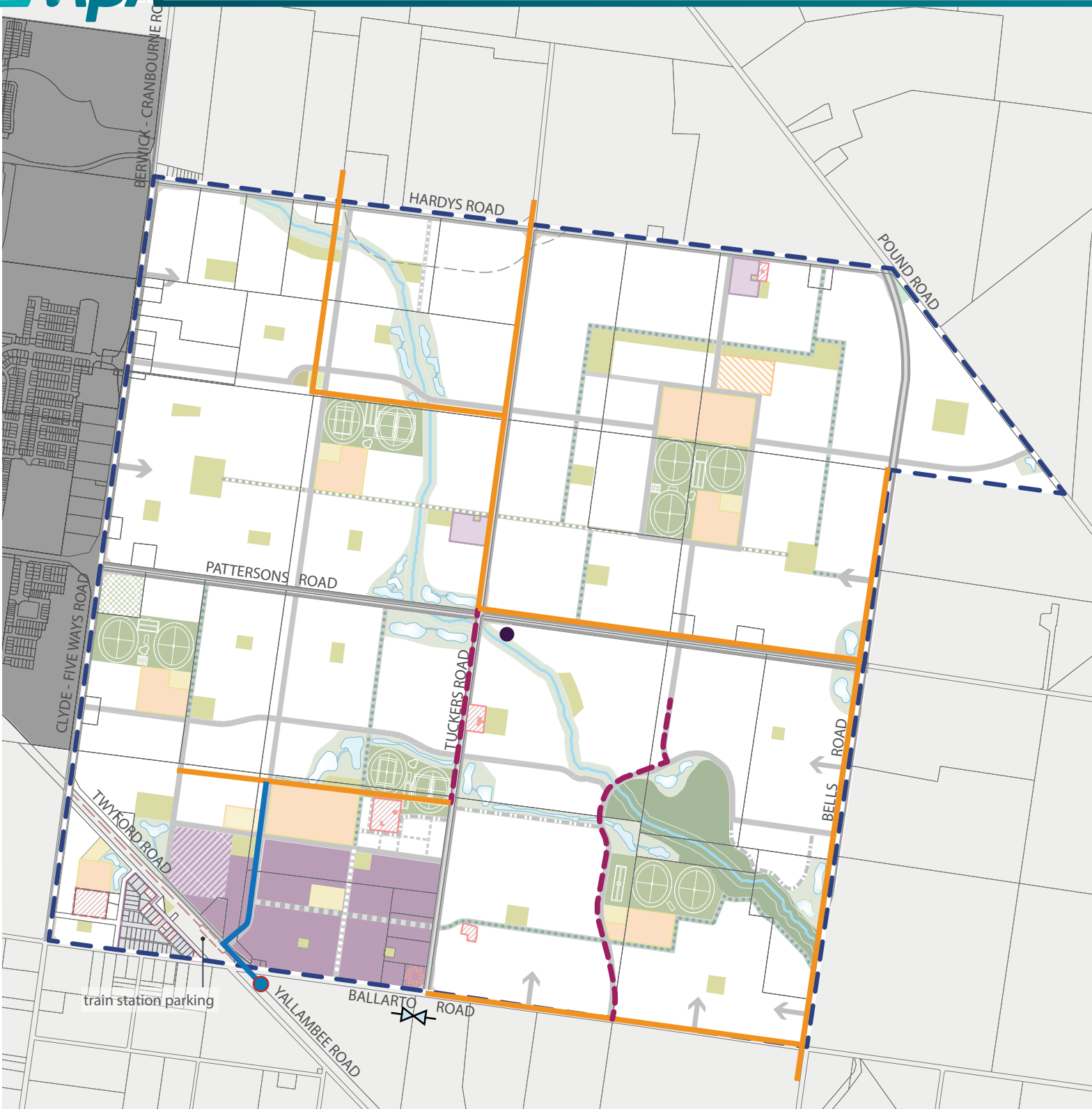
- R53** Unless arrangements for the construction of the connector street and green link access level 2 street road bridges shown on Plan 7 have been made to the satisfaction of the responsible authority, a permit for subdivision of land shown as properties 16, 25 and 36 on Plan 3 must provide for the construction of the bridge or include a requirement that the owner of the land under permit enter into an agreement under Section 173 of the *Planning and Environment Act 1987* to contribute towards the construction of the bridge.

GUIDELINES

- G31** Street layouts should provide multiple convenient routes to major destinations such as the Thompsons Road Health Facility and local town centre, the Hardys Road major town centre, the potential future Clyde railway station site and Clyde major town centre and the arterial road network.
- G32** Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
- G33** Culs-de-sac should not detract from convenient pedestrian, cycle and vehicular connections.
- G34** Slip lanes should be avoided in areas of high pedestrian activity and only be provided at any other intersection between connector roads and arterial roads where they are necessitated by high traffic volumes, to the satisfaction of the coordinating roads authority.
- G35** The frequency of vehicular crossovers on widened verges (a verge in excess of six metres) should be minimised through the use of a combination of:
- Rear loaded lots with laneway access.
 - Vehicular access from the side of a lot.
 - Combined or grouped crossovers.
 - Increased lot widths.

CONDITIONS

- C10** **Conditions for subdivision or building and works permits where land is required for road widening**
- Land required for road widening including right of way flaring for the ultimate design of any intersection within an existing or proposed local road must be transferred to or vested in Council at no cost to the acquiring agency unless funded by the *Clyde Development Contributions Plan*.



- precinct boundary
- proposed water pressure reduction station
- proposed sewer alignment
- proposed sewer alignment pumping station
- gravity sewer (indicative only)
- rising main
- pump station

NOTES:

- The alignment and size of utilities shown on this plan are indicative and subject to confirmation by the relevant service authority

3.8 Integrated Water Management & Utilities

3.8.1 Integrated Water Management

REQUIREMENTS	
R54	Consistent with Clause 56.01-2 and Clause 56.07 of the Casey Planning Scheme, VPP Practice Note 39, and any requirements or guidelines in this PSP, a subdivision of 60 or more lots must include an Integrated Water Management Plan.
R55	Development must meet or exceed best practice stormwater quality treatment standards prior to discharge to receiving waterways and as outlined on Plan 9, unless otherwise approved by Melbourne Water and the responsible authority.
R56	Where a waterway is contained within the Clyde Creek corridor as shown on Plan 9, development works must: <ul style="list-style-type: none"> • Not encroach past the waterway corridor defined in this PSP, unless otherwise agreed by the responsible authority and Melbourne Water. • Minimise earthworks and impact on the existing landform of the waterway. • Retain existing vegetation as part of waterway landscaping. • All to the satisfaction of Melbourne Water and the responsible authority.
R57	Final design and boundary of constructed waterways, waterway corridors, retarding basins, stormwater quality treatment infrastructure, and associated paths, boardwalks, bridges, and planting, must be to the satisfaction of Melbourne Water and the responsible authority.
R58	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment. Where this is not possible, development proposals must demonstrate how any interim solution adequately manages and treats stormwater generated from the development and how this will enable delivery of an ultimate drainage solution, all to the satisfaction of Melbourne Water and the responsible authority.
R59	Stormwater conveyance and treatment must be designed in accordance with the relevant Development Services Scheme to the satisfaction of Melbourne Water.
GUIDELINES	
G36	The design and layout of roads, road reserves, and public open space should optimise water use efficiency and long-term viability of vegetation and public uses through the use of Water Sensitive Urban Design initiatives.
G37	Where practical, development should include integrated water management initiatives to diversify water supply, reduce reliance on potable water and increase the utilisation of storm and waste water contributing to a sustainable and green urban environment.
G38	Development should have regard to relevant policies and strategies being implemented by the responsible authority, Melbourne Water and South East Water, including any approved Integrated Water Management Plan.
G39	Where practical, integrated water management systems should be designed to: <ul style="list-style-type: none"> • Maximise habitat values for local flora and fauna species. • Enable future harvesting and/or treatment and re-use of stormwater, including those options or opportunities outlined in Plan 9.
G40	Where practical, and where primary waterway, conservation or recreation functions are not adversely affected, land required for integrated water management initiatives (such as stormwater harvesting, aquifer storage and recharge, sewer mining) should be incorporated within the precinct open space system as depicted on Plan 5, subject to the approval of the responsible authority.

3.8.2 Utilities

REQUIREMENTS	
R60	Trunk services are to be placed along the general alignments shown on Plan 10, subject to any refinements as advised by the relevant service authorities.
R61	<p>Before development commences on a property, functional layout plans are to be submitted of the road network showing the location of all:</p> <ul style="list-style-type: none"> • Underground services • Driveways/crossovers • Street lights • Street trees <p>A typical cross section of each street is also to be submitted showing above and below ground placement of services, street lights and trees.</p> <p>The plans and cross sections must demonstrate how services, driveways and street lights will be placed so as to achieve the road reserve width (consistent with the road cross sections outlined in this PSP) and accommodate the minimum level of street tree planting (as outlined in this PSP). If required, the plan and cross sections will nominate which services will be placed under footpaths or road pavement. The plans and cross sections are to be approved by the responsible authority and all relevant service authorities before development commences.</p>
R62	Delivery of underground services must be coordinated, located, and bundled (utilising common trenching) to facilitate the planting of trees and other vegetation within road verges.
R63	All existing above ground electricity cables of less than 66kv voltage must be placed underground as part of the upgrade of existing roads.
R64	All new electricity supply infrastructure (excluding substations and cables of a voltage of 66kv or greater) must be provided underground.
R65	Where existing above ground electricity cables of 66kv voltage are retained along road ways, underground conduits are to be provided as part of the upgrade of these roads to allow for future undergrounding of the electricity supply.
R66	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood and to minimise amenity impacts, and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be located in public open space, the land required to accommodate that infrastructure will not be counted as contributing to open space requirements classified under Clause 52.01 or within the <i>Clyde Development Contributions Plan</i> .
R67	Utilities must be placed outside any conservation areas shown on Plan 6. Utilities must be placed outside of natural waterway corridors or on the outer edges these corridors to avoid disturbance to existing native vegetation, significant landform features (e.g. rock outcrops) and heritage sites, to the satisfaction of Melbourne Water and the responsible authority.
R68	Any road crossings, pathways or open space proposed to be located within the desalination pipe easement shall be to the satisfaction of Melbourne Water and DEPI.
GUIDELINES	
G41	Above-ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G42	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix 4.5.
G43	Utility easements to the rear of lots should only be provided where there is no practical alternative.

Table 6 Retarding Basins

ID	Description	Location	Area (Ha) &/or Corridor Widths	Responsibility
WLRB1	Clyde Creek	East of Hardys Road	4.20	MWC
WLRB3	Clyde Creek	North of AR 53-01	6.60	MWC
WLRB4	Clyde Creek	North and south of Pattersons Road adjacent to Tuckers Road	11.50	MWC
BRS2	Clyde Creek	East of Pattersons Road adjacent to Tuckers Road	0.48	MWC
SBRB3	Station Creek		1.10	MWC
WLRB5	Station Creek	West of the MTC	3.20	MWC
WLRB6	Station Creek	south of the AR-04	4.10	MWC
WLRB7	Station Creek	east of AR-04	2.80	MWC
WL8/BRS3	Station Creek	south of the GGF area	3.15	MWC
WL9/BRS4	North Tributary	North of the GGF area	3.50	MWC
WLRB10	Bells Road	East of the GGF area	2.70	MWC
SBRB7	Muddy Gates Creek	east edge of PSP	0.90	MWC
SBRB8	Muddy Gates Creek	Clyde township	3.50	MWC

MWC= Melbourne Water Corporation

3.9 Infrastructure delivery & Staging

3.9.1 Precinct Infrastructure Plan

The Precinct Infrastructure Plan (PIP) at Appendix 1 sets out the infrastructure and services required to meet the need of the proposed development within the precinct. The infrastructure items and services are to be provided through a number of mechanisms including:

- Subdivision construction works by developers.
- Agreement under S173 of the Planning and Environment Act 1987.
- Utility service provider requirements.
- The Clyde Development Contributions Plan, including separate charge areas for local items.
- Relevant development contributions from adjoining areas.
- Capital works projects by Council, State government agencies and non-government organizations.
- Works in Kind (WIK) projects undertaken by developers on behalf of Council or State government agencies.

3.9.2 Development Services Strategy

Drainage for the precinct is not covered by the Clyde Development Contributions Plan as the relevant authority for outfall drainage is Melbourne Water. Melbourne Water has prepared a Development Services Scheme (DSS) which applies to the precinct. Under the DSS developers are required to pay a levy for each developable hectare of land which is included in a planning permit application. The contribution will be used by Melbourne Water to cover the cost of constructing drainage assets provided for in the DSS and also land required for the drainage assets. Melbourne Water has advised that the DSS has been costed as follows:

- Civil works are based on engineering estimates of the costs of the various drainage works; and
- As a principle, land costs are based on the same land values as the Clyde Development Contributions Plan for consistency.

Like the Clyde Development Contributions Plan, the DSS is subject to indexation and adjustments. Civil works will be adjusted by the adjustment methodology explained in the DSS to keep pace with rising costs and land values will move in line (upwards or downwards) with movement in land values provided for in the Clyde Development Contributions Plan.

Alternative stormwater quality treatments may be provided subject to agreement with Melbourne Water and Council.

3.9.3 Development Staging

REQUIREMENTS	
R69	Development of sensitive uses on land within the Hardys Road quarry buffer area shown on Plan 2 will not be permitted so long as the quarry remains either operational or not rehabilitated. The area designated as a buffer may be adjusted where a risk assessment and environmental audit has been approved by the responsible authority.
R70	Development staging must provide for the timely provision and delivery of: <ul style="list-style-type: none"> • Arterial road reservations. • Connector streets and connector street bridges. • Street links between properties, constructed to the property boundary. • Connection of the on- and off-road pedestrian and bicycle network.
R71	Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the structure plan, by any date or stage of development required or approved by the responsible authority.
GUIDELINES	
G44	Staging will be determined largely by the development proposals on land within the precinct and the availability of infrastructure services. Within this context, the following should be achieved: <ul style="list-style-type: none"> • Development staging should, to the extent practicable, be integrated with adjoining developments, through the timely provision of connecting roads and walking/cycling paths. • Where development does not directly adjoin the urban edge, local open space should be provided in early stages to provide new residents with amenity. • Access to each new lot must be via a sealed road.
G45	The early delivery of active open space, community facilities, local parks and playgrounds is encouraged within each neighbourhood and may be delivered in stages.

3.9.4 Subdivision Works by Developers

REQUIREMENTS	
R72	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: <ul style="list-style-type: none"> • Connector roads and local streets. • Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria). • Landscaping of all existing and future roads and local streets. • Intersection works and traffic management measures along arterial roads, connector streets, and local streets (except those included in the DCP). • Council approved fencing and landscaping (where required) along arterial roads. • Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points (except those included in the DCP). • Bicycle parking as required in this document. • Appropriately scaled lighting along all roads, major shared and pedestrian paths, and traversing public open space. • Basic improvements to local parks and open space (refer open space delivery below). • Local drainage system. • Local street or pedestrian path crossings of waterways unless included in the DCP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan. • Infrastructure as required by utility service providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas, and telecommunications.

R73	Any subdivision adjacent to the rail reservation should provide fencing, at full cost to the proponent, to the satisfaction of Public Transport Victoria.
R74	<p>OPEN SPACE DELIVERY</p> <p>All public open space (where not otherwise provided via the DCP) must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including:</p> <ul style="list-style-type: none"> • Removal of all existing and disused structures, foundations, pipelines, and stockpiles. • Clearing of rubbish and weeds, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise). • Provision of water tapping, potable and recycled water connection points. Sewer and gas and electricity connection points must also be provided to land identified as an active reserve or district-level passive open space. • Planting of trees and shrubs. • Provision of vehicular exclusion devices (fence, bollards, or other suitable method) and maintenance access points. • Installation of park furniture including barbeques, shelters, furniture, rubbish bins, local scale playground equipment, local scale play areas, and appropriate paving to support these facilities, consistent with the type of public open space listed in the open space delivery guide (Table 5).
R75	<p>Active open space required to be set aside by the DCP must be vested in the relevant authority in the following condition:</p> <ul style="list-style-type: none"> • Free from surface / protruding rocks and structures. • Reasonably graded and / or topsoiled to create a safe and regular surface (with a maximum 1:6 gradient). • Bare, patchy and newly graded areas seeded, top-dressed with drought resistant grass.
R76	<p>Any heritage site or conservation area to be vested in the relevant authority must be done so in a standard that satisfies the requirements of that authority. Works required prior to the transfer include, but may not be limited to:</p> <ul style="list-style-type: none"> • Clearing of rubbish and weeds. • Essential repairs to and stabilisation of any structures. • Any fencing required to ensure the safety of the public. <p>Any works carried out must be consistent with any relevant Cultural Heritage Management Plan or Conservation Management Plan.</p>
R77	<p>With respect to the public open space contribution required by Clause 52.01 of the Casey Planning Scheme, this provision sets out the amount of land to be contributed by each property in the precinct and consequently where a cash contribution is required in lieu of land.</p> <p>All land owners must provide a public open space contribution equal to 4% of the Net Developable Area (Residential and Town Centres) (NDAR) upon subdivision of land in accordance with the following:</p> <ul style="list-style-type: none"> • Where land is required for unencumbered open space purposes as shown on Plan 3 and specified in Table 1 and is equal to 4% of NDAR that land is to be transferred to Council at no cost. • Where no land or less than 4% of NDAR is shown on Plan 3 and specified in Table 1, as required for unencumbered open space purposes a cash contribution is to be made to Council to bring the total open space contribution to a value equal to 4% of NDAR of that site. • Where land required for unencumbered open space purposes as shown on Plan 3 and specified in Table 1 is more than 4% of NDAR, Council will pay an amount equivalent to the value of the additional land being provided by that proposed development.

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4.0 APPENDICES

4.1 Precinct Infrastructure Plan

Refer to the Clyde DCP document.

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PSP PROPERTY ID	Total Net Developable Area (Hectares)	Key Percentages Local Unencumbered Open Space				Clause 52.01 Open Space Delivery			Other Land Uses			Residential - General			Local Town Centres / Local Convenience Centre			Major town Centre		
		Net Devpt Area % of Precinct	Local Sportsfields (active open space) % NDA	Local Parks (passive open space) % NDA	Total	Clause 52.01 Open Space Delivery Target %	Difference	Equiv Land Area	Major town Centre	Local town centre / Local Convenience Centre	Total Net Residential Area Ha (NRA)	NDHa	Dwell / NRHa	Dwellings	NDHa	Dwell / NRHa	Dwellings	NDHa	Dwell / NRHa	Dwellings
54-1	7.19	85.74%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.29			7.19	7.19	16	115	0.00	10	0	0.00	15	0
54-2	6.91	81.33%	0.00%	17.32%	17.32%	4.01%	13.31%	0.92			6.91	6.91	16	111	0.00	10	0	0.00	15	0
54-3	6.37	74.81%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.26			6.37	6.37	16	102	0.00	10	0	0.00	15	0
54-4	4.29	56.14%	0.00%	27.34%	27.34%	4.01%	23.33%	1.00			4.29	4.29	16	69	0.00	10	0	0.00	15	0
54-5	0.72	83.76%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.03			0.72	0.72	16	12	0.00	10	0	0.00	15	0
54-6	13.54	74.12%	0.00%	7.33%	7.33%	4.01%	3.31%	0.45			13.54	13.54	16	217	0.00	10	0	0.00	15	0
54-7	15.50	96.11%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.62			15.50	15.50	16	248	0.00	10	0	0.00	15	0
54-8	0.32	79.34%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.01			0.32	0.32	16	5	0.00	10	0	0.00	15	0
54-9	0.49	79.40%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.02			0.49	0.49	16	8	0.00	10	0	0.00	15	0
54-10	8.72	98.95%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.35			8.72	8.72	16	139	0.00	10	0	0.00	15	0
54-11	7.30	98.20%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.29			7.30	7.30	16	117	0.00	10	0	0.00	15	0
54-12	0.48	79.09%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.02			0.48	0.48	16	8	0.00	10	0	0.00	15	0
54-13	0.49	79.05%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.02			0.49	0.49	16	8	0.00	10	0	0.00	15	0
54-14	0.48	78.82%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.02			0.48	0.48	16	8	0.00	10	0	0.00	15	0
54-15	14.04	96.47%	0.00%	3.58%	3.58%	4.01%	-0.43%	-0.06			14.04	14.04	16	225	0.00	10	0	0.00	15	0
54-16	27.77	80.27%	3.03%	1.81%	4.84%	4.01%	-2.20%	-0.61			27.77	27.77	16	444	0.00	10	0	0.00	15	0
54-17	30.04	89.53%	0.00%	6.11%	6.11%	4.01%	2.10%	0.63			30.04	30.04	16	481	0.00	10	0	0.00	15	0
54-18	28.01	82.22%	0.75%	6.39%	7.14%	4.01%	2.38%	0.67			28.01	28.01	16	448	0.00	10	0	0.00	15	0
54-19	0.86	85.98%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.03		1.826	0.86	0.86	16	14	0.00	10	0	0.00	15	0
54-20	77.78	79.65%	0.48%	6.86%	7.34%	4.01%	2.84%	2.21			75.96	75.96	16	1215	1.83	10	18	0.00	15	0
54-21	0.15	73.69%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.01			0.15	0.15	16	2	0.00	10	0	0.00	15	0
54-22	60.20	91.37%	0.00%	6.77%	6.77%	4.01%	2.75%	1.66			60.20	60.20	16	963	0.00	10	0	0.00	15	0
54-23	0.47	69.64%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.02			0.47	0.47	16	8	0.00	10	0	0.00	15	0
54-24	1.00	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04			1.00	1.00	16	16	0.00	10	0	0.00	15	0
54-25	45.81	66.12%	18.99%	2.77%	21.75%	4.01%	-1.25%	-0.57		1.962	43.85	43.85	16	702	1.96	10	20	0.00	15	0
54-26	48.64	94.73%	0.00%	3.30%	3.30%	4.01%	-0.71%	-0.35			48.64	48.64	16	778	0.00	10	0	0.00	15	0
54-27	10.53	60.43%	65.49%	0.00%	65.49%	4.01%	-4.01%	-0.42			10.53	10.53	16	168	0.00	10	0	0.00	15	0
54-28	55.16	78.93%	10.00%	3.11%	13.11%	4.01%	-0.90%	-0.50			55.16	55.16	16	883	0.00	10	0	0.00	15	0
54-29	1.00	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04			1.00	1.00	16	16	0.00	10	0	0.00	15	0
54-30	1.00	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04			1.00	1.00	16	16	0.00	10	0	0.00	15	0
54-31	0.00	0.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	0.00			0.00	0.00	16	0	0.00	10	0	0.00	15	0
54-32	16.81	52.63%	55.93%	0.00%	55.93%	4.01%	-4.01%	-0.67			16.81	16.81	16	269	0.00	10	0	0.00	15	0
54-33	0.76	75.72%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.03			0.76	0.76	16	12	0.00	10	0	0.00	15	0
54-34	27.08	95.24%	0.00%	5.00%	5.00%	4.01%	0.99%	0.27			27.08	27.08	16	433	0.00	10	0	0.00	15	0
54-35	46.62	70.12%	12.09%	2.00%	14.09%	4.01%	-2.01%	-0.94			46.62	46.62	16	746	0.00	10	0	0.00	15	0
54-36	47.34	73.13%	0.00%	4.54%	4.54%	4.01%	0.53%	0.25			47.34	47.34	16	757	0.00	10	0	0.00	15	0
54-37	23.33	64.43%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.94			23.33	23.33	16	373	0.00	10	0	0.00	15	0
54-38	30.84	90.96%	0.00%	0.97%	0.97%	4.01%	-3.04%	-0.94			30.84	30.84	16	493	0.00	10	0	0.00	15	0
54-39	28.48	81.20%	0.00%	8.57%	8.57%	4.01%	4.55%	1.30	3.652		24.82	24.82	16	397	0.00	10	0	3.65	15	55
54-40	0.65	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.03			0.65	0.65	16	10	0.00	10	0	0.00	15	0
54-41	1.11	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04	1.094		0.02	0.02	16	0	0.00	10	0	1.09	15	16
54-42	17.98	51.02%	15.23%	7.99%	23.22%	4.01%	3.98%	0.72	11.345		6.63	6.63	16	106	0.00	10	0	11.34	15	170
54-43	24.41	93.47%	0.00%	0.84%	0.84%	4.01%	-3.17%	-0.77	24.111		0.30	0.30	16	5	0.00	10	0	24.11	15	362
54-44	0.12	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.00	0.124		0.00	0.00	16	0	0.00	10	0	0.12	15	2
54-45	0.08	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.00	0.082		0.00	0.00	16	0	0.00	10	0	0.08	15	1
54-46	2.03	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.08	2.034		0.00	0.00	16	0	0.00	10	0	2.03	15	31
54-47	2.00	100.00%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.08	1.997		0.00	0.00	16	0	0.00	10	0	2.00	15	30
54-48	1.84	91.17%	0.00%	9.68%	9.68%	4.01%	5.67%	0.10	1.836		0.00	0.00	16	0	0.00	10	0	1.84	15	28
54-49	0.99	99.17%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04	0.990		0.00	0.00	16	0	0.00	10	0	0.99	15	15
54-50	0.89	92.17%	0.00%	0.00%	0.00%	4.01%	-4.01%	-0.04	0.887		0.00	0.00	16	0	0.00	10	0	0.89	15	13
54-51	58.87	85.09%	4.20%	1.36%	5.56%	4.01%	-2.65%	-1.56			58.87	58.87	16	942	0.00	10	0	0.00	15	0
54-52	0.43	7.89%	0																	

4.2 Property Specific Land Budget

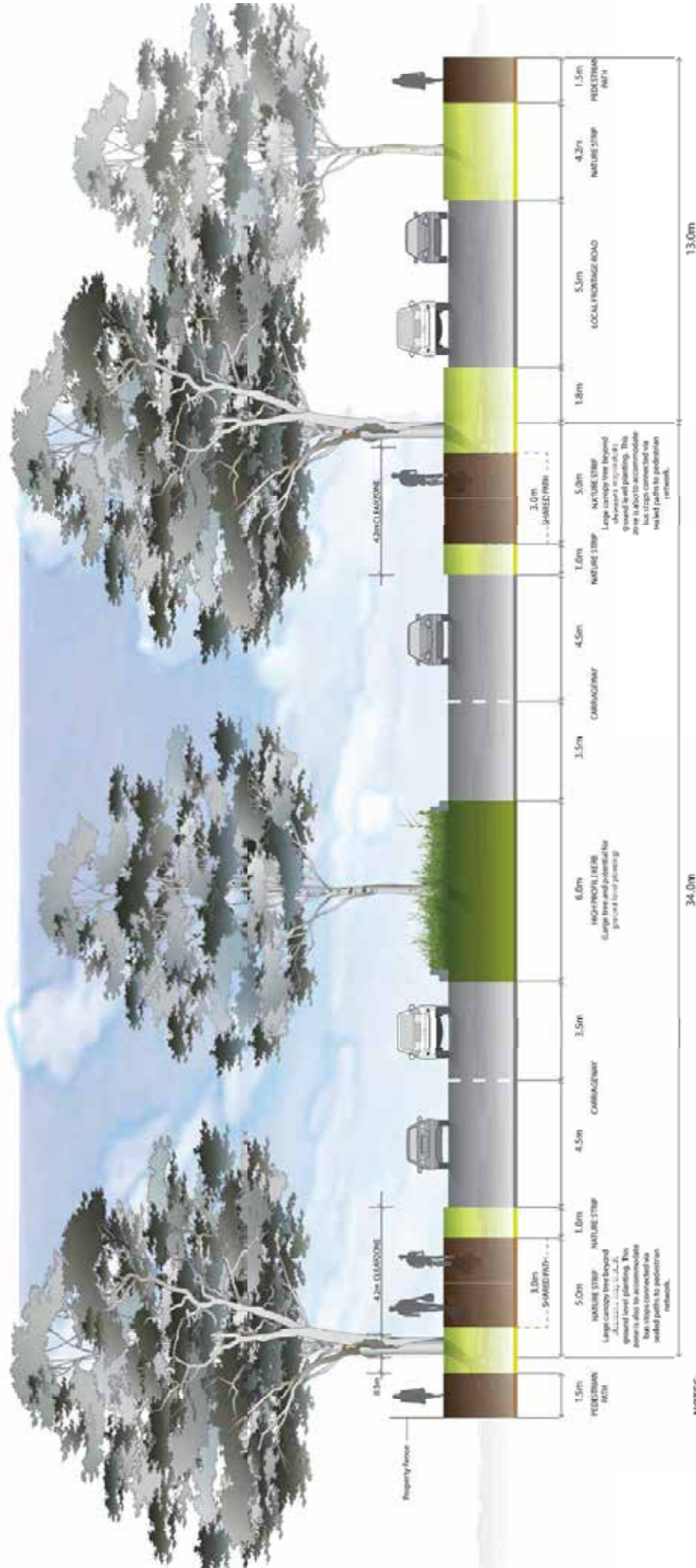
LOCAL TOWN CENTRES		PRINCIPLES
Principle 1 Provide every neighbourhood with a viable Local Town Centre as a focus of the community with a fine grain, closely spaced distribution pattern.	<ul style="list-style-type: none"> • Deliver a fine grain distribution pattern of highly accessible Local Town Centres generally on a scale of one Local Town Centre for every neighbourhood of 8,000 to 10,000 people. • Locate Local Town Centres with a distribution pattern of around one Local Town Centre for every square mile (2.58km²) of residential development • Deliver a network of economically viable Local Town Centres including a supermarket and supporting competitive local shopping business, medical, leisure, recreation and community needs while allowing opportunities for local specialisation. 	
Principle 2 Locate Local Town Centres on a connector street intersection with access to an arterial road and transit stop.	<ul style="list-style-type: none"> • Locate the Local Town Centre on an arterial/connector intersection and ensure that the Local Town Centre is central to the residential catchment that it services while optimising opportunities for passing trade. • Locate the Local Town Centre with future railway stations or other forms of transit stops to benefit the Local Town Centre and to offer convenience for public transport passengers. • Other Local Town Centre locations may be considered where the location results in the Local Town Centre being central to the residential catchment that it serves and/or the location incorporates natural or cultural landscape features such as rivers and creeks, tree rows, topographic features or other heritage structures which assist in creating a sense of place. 	
Principle 3 Locate Local Town Centres in an attractive setting so that most people live within a walkable catchment of a Local Town Centre and relate to the centre as the focus of the neighbourhood.	<ul style="list-style-type: none"> • Ensure that 80-90% of households are within a 1km walkable catchment of a local or higher order Town Centre. • Locate Local Town Centres in attractive settings and incorporate natural or cultural landscape features such as creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value. • The design of the Local Town Centre should respect existing views and vistas to and from the Local Town Centre location. 	
Principle 4 Provide a full range of local community and other facilities including a supermarket, shops, medical and recreation uses.	<ul style="list-style-type: none"> • Land uses should be located generally in accordance with the locations and general land use terms identified on the Local Town Centre Concept Plan. • The design of the Local Town Centre should facilitate development with a high degree of community interaction and provide a vibrant and viable mix of retail, recreation and community facilities. • The creation of land use precincts within the centre is encouraged to facilitate the clustering of uses. For example a 'medical precinct' where similar or synergistic uses should be sited together to promote stronger trading patterns. • The design of the Local Town Centre should also encourage a pattern of smaller scale individual tenancies and land ownership patterns within the Local Town Centre to attract investment and encourage greater diversity and opportunities for local business investment. • The Local Town Centre should generally be anchored by one full line supermarket and supported by specialty stores unless otherwise noted on the Local Town Centre Concept Plan. • Supermarkets and other commercial or community anchors or secondary anchors within the Local Town Centre should be located diagonally opposite one another across the main street and/or town square to promote desire lines that maximise pedestrian movement within the public realm. • A small access mall that address a supermarket/other large box uses may be considered as part of the overall design. Such access malls may have a limited number of internalised shops. The primary access to the mall should be from the main street and/or the town square. • Active building frontages should address the main street and town square to maximise exposure to passing trade, and promote pedestrian interaction. • Shopfronts should have varying widths and floor space areas to promote a diversity of trading opportunities throughout the Local Town Centre. • Flexible floor spaces (including floor to ceiling heights) should be incorporated into building design to enable localised commercial uses to locate amongst the activity of the Local Town Centre. • Mixed Use precincts should provide retail and/or office at ground level, and office, commercial and residential above ground level. • Child care, medical centres and specialised accommodation (e.g. aged care/nursing home, student accommodation, and serviced apartments) should be located within the Local Town Centre and at the edge of the Local Town Centre to contribute to the activity of the centre and so these uses are close to the services offered by the centre. • Car parking areas should be located centrally to the site and to the rear and/or side of street based retail frontages. • Car parking areas should be designed to accommodate flexible uses and allow for long term development opportunities. • Public toilets should be provided in locations which are safe and accessible and within the managed area of the property. 	

<p>Principle 5</p> <p>Focus on a public space as the centre of community life.</p>	<ul style="list-style-type: none"> A public space which acts as the central meeting place within the Local Town Centre must be provided. This public space may take the form of a town square, town park, public plaza space, public market place or a similar locally responsive option. The public space should be located in a position where the key uses of the Local Town Centre are directly focuses on this public space to ensure that it is a dynamic and activated space. The public space should be designed to function as the identifiable 'centre' or 'heart' with a distinctive local character for both the Local Town Centre and the broader residential catchment. The public space should be designed as a flexible and adaptable space so that a range of uses can occur within this space at any one time. Such uses may include people accessing their daily shopping and business needs as well as providing a space where social interaction, relaxation, celebrations and temporary uses (such as stalls, exhibitions and markets) can occur. The public space should be well integrated with pedestrian and cycle links around and through the Local Town Centre so that the public space acts as a 'gateway' to the activity of the centre. The main public space or town square within the Local Town Centre should have a minimum area of 500sqm. Smaller public spaces which are integrated within the built form design, are surrounded by active frontages and facilitate high levels of pedestrian movement are also encouraged. Footpath widths within and around the public space as well as along the main street should be sufficient to provide for pedestrian and mobility access as well as provide for outdoor dining and smaller gathering spaces.
<p>Principle 6</p> <p>Integrate local employment and service opportunities in a business friendly environment.</p>	<ul style="list-style-type: none"> A variety of employment and business opportunities should be planned through the provision of a broad mix of land uses and commercial activities. A range of options and locations for office based businesses should be provided within the Local Town Centre. Services and facilities to support home based and smaller businesses are encouraged within the Local Town Centre. Appropriate locations for small office/home office (SOHO) housing options which maximise the access and exposure to the activity of the Local Town Centre should be considered as part of the design process.
<p>Principle 7</p> <p>Include a range of medium and high density housing and other forms of residential uses within and surrounding the Local Town Centre.</p>	<ul style="list-style-type: none"> Medium and high density housing in and around the Local Town Centre is required to provide passive surveillance, contribute to the life of the centre and to maximise the amenity of the centre. Medium and high density housing should establish in locations of high amenity around the Local Town Centre and be connected to the activity of the Local Town Centre through strong pedestrian and cycle links. A range of housing types for a cross section of the community (such as retirement living) should be included in and around the Local Town Centre. Specialised accommodation (such as aged/nursing care, student accommodation and serviced apartments) is encouraged at the edge of Local Town Centres with strong pedestrian and cycle links to the central activity area of the Town Centre. The Local Town Centre design should avoid potential land use conflicts between residential and commercial uses by focusing on retail operations on the main street and around the town square and locating residential uses predominantly at the edge of the Local Town Centre and/or on upper levels. Refer to the Small Lot Housing Code for further information about housing requirements for small lots around Local Town Centres.
<p>Principle 8</p> <p>Design the Local Town Centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access.</p>	<ul style="list-style-type: none"> The Local Town Centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety. The Local Town Centre should provide a permeable network of streets, walkways and public spaces that provide linkages throughout the centre and designated pedestrian crossing points. The main street should be designed to comply with the relevant cross sections found within the Precinct Structure Plan. A speed environment of 40km/h or less should be designed for the length of the main street. Public transport infrastructure/facilities should be planned for commuter friendly/convenient locations within the Local Town Centre. Bus stops should be provided in accordance with the Department of Transport Public Transport Guidelines for Land Use and Development, to the satisfaction of Public Transport Victoria. Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations. Supermarket and other 'large format' buildings should not impede on the movement of people around the Local Town Centre. Key buildings within the Local Town Centre should be located to encourage pedestrian movement along the length of the street through public spaces. The design of buildings within the Local Town Centre should have a relationship with and should interface to the public street network. Car parking areas should be designated to ensure passive surveillance and public safety through adequate positioning and lighting. Car parking areas should be designed to provide dedicated pedestrian routes and areas of landscaping. On street car parking should be provided either as parallel or angle parking to encourage short stay parking. Car parking ingress and egress crossovers should be grouped and limited. Car parking ingress or egress and car parking areas accommodating heavy vehicle movements should be designed to limit the pedestrian/vehicle conflict. Heavy vehicle movements (i.e. loading and deliveries) should be located to the rear and/or side of street based retail frontages. Streets, public spaces and car parks should be well lit to Australian standards and with pedestrian friendly (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above. All public spaces should respond appropriately to the design for mobility access principles.

<p>Principle 9 Create a sense of place with high quality engaging urban design.</p>	<ul style="list-style-type: none"> Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography of the Local Town Centre location and its surrounds. The Local Town Centre design should seek to minimise amenity and noise impacts resulting from the mix of uses by maintaining separation and transitional areas between retail and housing activities, such as open space, road networks and community facilities. The design of each building should contribute to a cohesive and legible character for the Local Town Centre as a whole. Sites in prominent locations (such as at key intersections, surrounding public spaces and terminating key view lines and vistas) should be identified for significant buildings or landmark structures. The design of building frontages should incorporate the use of a consistent covered walkway or verandah to provide for weather protection. The built form should define the main street and be aligned with the property boundary. Street facades and all visible side or rear facades should be visually rich, interesting and well articulated and be finished in suitable materials and colours that contribute to the character of the Local Town Centre. Corner sites, where the main street meets an intersecting and/or arterial road should: <ul style="list-style-type: none"> Be designed to provide built form that anchors the main street to the intersecting road. This can be achieved through increased building height, scale and articulated frontages; Incorporate either 2 storey building or 2 storey elements (such as awnings and roof lines); Be developed to have a ground floor active frontage and active floor space component to the main street frontage; and Not be developed for standard single storey fast food outcomes. Materials and design elements should be compatible with the environment and landscape character of the broader precinct. The supermarket and secondary anchors should have frontages that directly address the main street and/or town square so that the use integrates with and promotes activity within the main street and public spaces/thoroughfares. Supermarkets or large format retail uses with a frontage to the main street should use clear glazing to allow view lines into the store from the street. (Planning permits for buildings and works should condition against the use of white washed windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing). Secondary access to the supermarket from car parking areas should be considered where it facilitates convenient trolley access and does not diminish the role of the primary access from the main street and or town square. The design and siting of supermarkets and other 'large format retail uses' should provide an appropriate response to the entire public domain. This includes but is not limited to car parking areas, predominantly routes and streets. Retail uses along street frontages should generally include access points at regular intervals to encourage activity along the length of the street. Retail and commercial buildings within the Local Town Centre should generally be built to the property line. Public spaces should be oriented to capture north sun and protect from prevailing winds and weather. Landscaping of all interface areas should be of a high standard as an important element to complement the built form design. Urban art should be incorporated into the design of the public realm. Street furniture should be located in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest to the Local Town Centre. Wrapping of car parking edges with built form, to improve street interface, should be maximised. Car parking areas should provide for appropriate landscaping with planting of canopy trees and dedicated pedestrian thoroughfares. Screening of centralised waste collection points should minimise amenity impacts with adjoining areas and users of the centre. Where service areas are accessible from car parks, they should present a well designed and secure facade to public areas. Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view.
<p>Principle 10 Promote localisation, sustainability and adaptability.</p>	<ul style="list-style-type: none"> The Local Town Centre should promote the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on the car. The Local Town Centre should be designed to be sympathetic to its natural surrounds by: <ul style="list-style-type: none"> Investigating the use of energy efficient design and construction methods for all buildings; Including Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (e.g. toilet flushing and landscape irrigation); Promoting safe and direct accessibility and mobility within and to and from the Local Town Centre; Including options for shade and shelter through a combination of landscape and built form treatments; Ensuring buildings are naturally ventilated to reduce the reliance on plant equipment for heating and cooling; Promoting passive solar orientation in the configuration and distribution of built form and public spaces; Grouping waste collection points to maximise opportunities for recycling and reuse; Promoting solar energy for water and space heating, electricity generation and internal and external lighting; and Investigating other opportunities for the built form to reduce greenhouse gas emissions associated with the occupation and the ongoing use of buildings. Encourage building design which can be adapted to accommodate a variety of uses over time. Ensure the Local Town Centre has an inbuilt capacity for growth and change to enable adaptation and the intensification of uses as the needs of the community evolve.
<p>Principle 11 Promote public transport use.</p>	<ul style="list-style-type: none"> Facilitate safe and efficient operation of public transport and bus services. Encourage use of public transport by locating bus stops in locations which are accessible, safe and convenient.



Cross Section
Primary Arterial Road 6 Lane (41m)
Thompsons Road / Berwick-Cranbourne Road / Bells Road / Pattersons Road

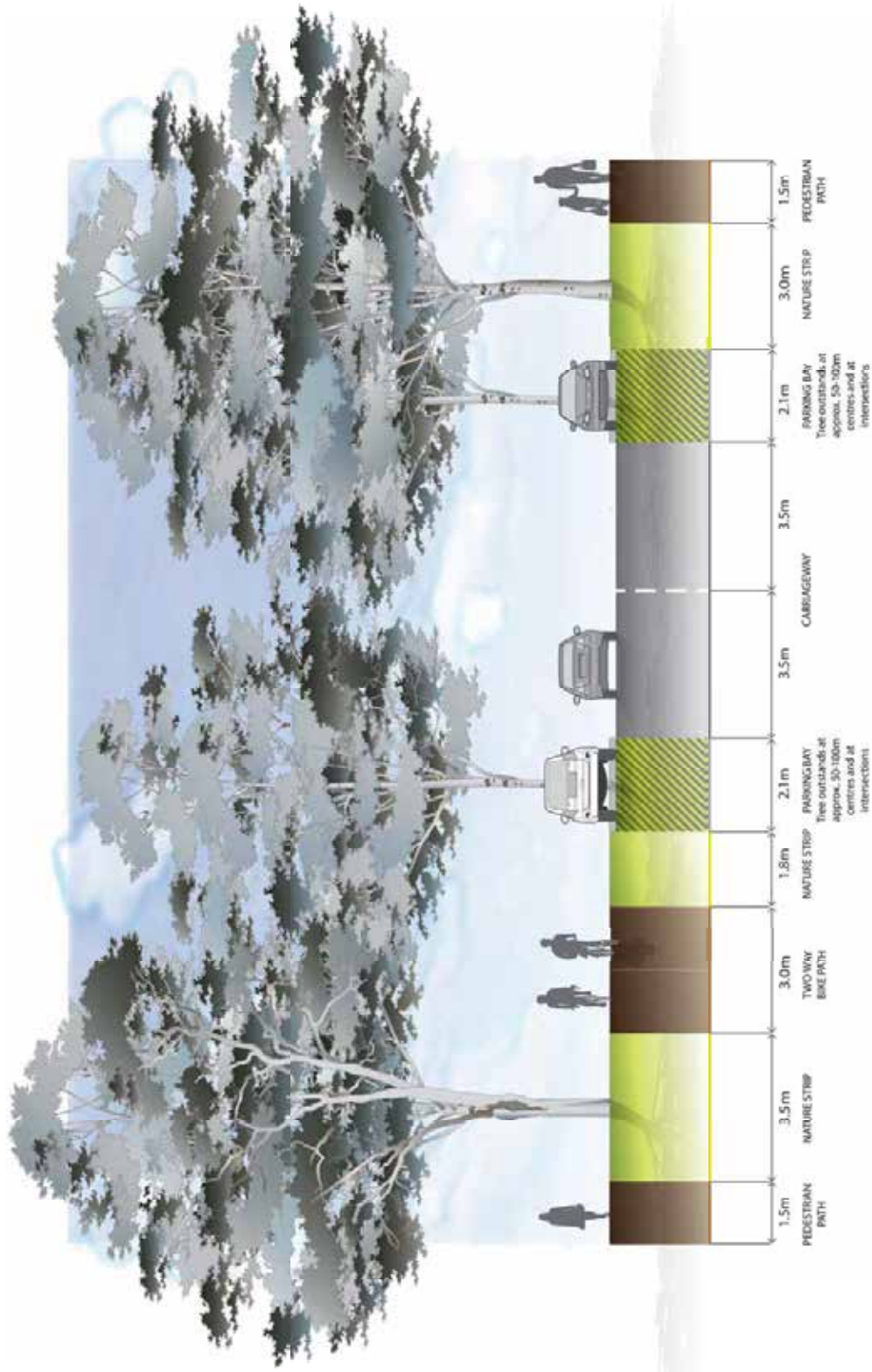


- NOTES:**
- 60km/hr – enables large canopy trees to median and increased tree planting to verge if no frontage road
 - Cross section treatment subject to detailed design approval by the Responsible Authority

Cross Section

Secondary Arterial Road 4 Lane (34m) High Profile Kerb to Median

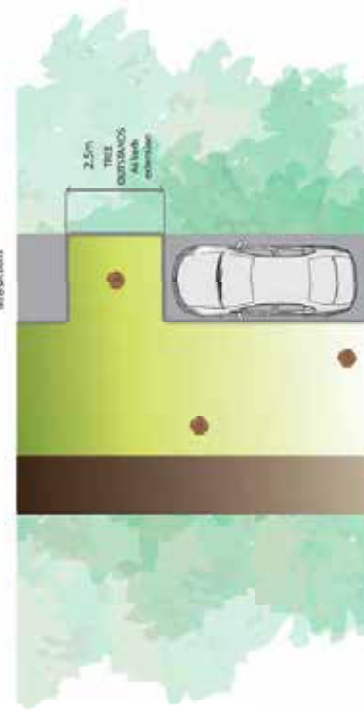
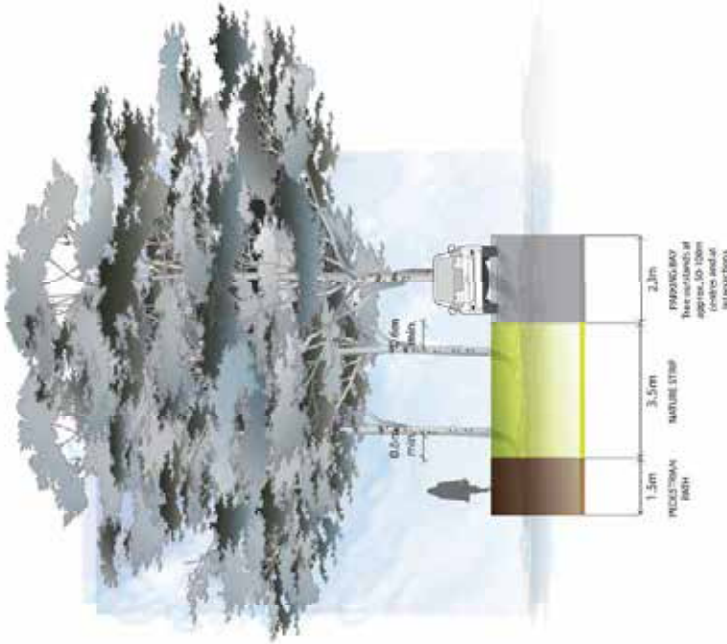
Tuckers Road / Hardys Road / Ballarto Road



NOTES:

- Minimum street tree mature height 15 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)

Cross Section
Connector Street (25.5m)
Two way off road bike path



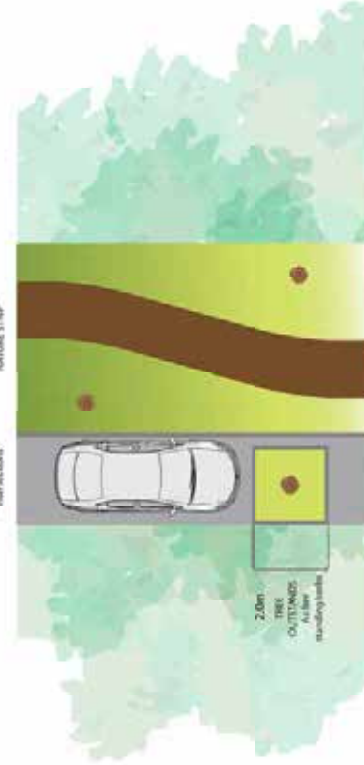
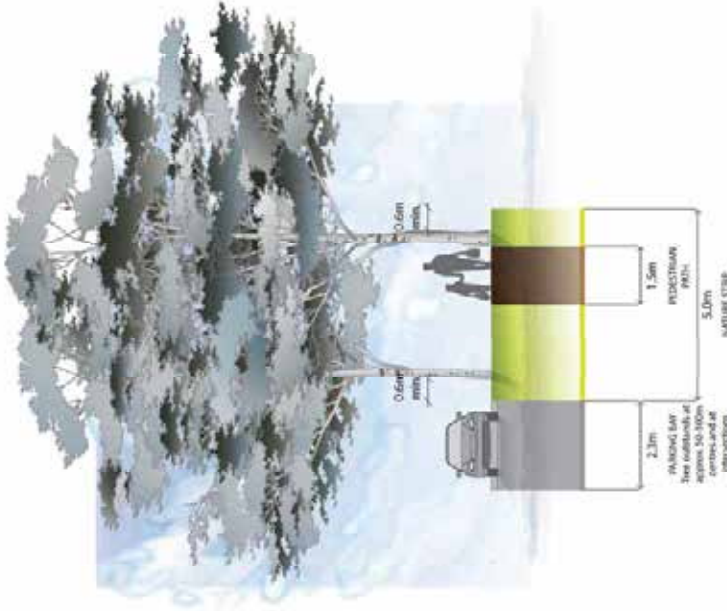
NOTES:

- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge
- Tree outstand with continuous extension of kerb shown

Cross Section A

Connector Street Standard (25.5m)

Variation Example 1 - Varying tree placement in nature strip
Possible Options include



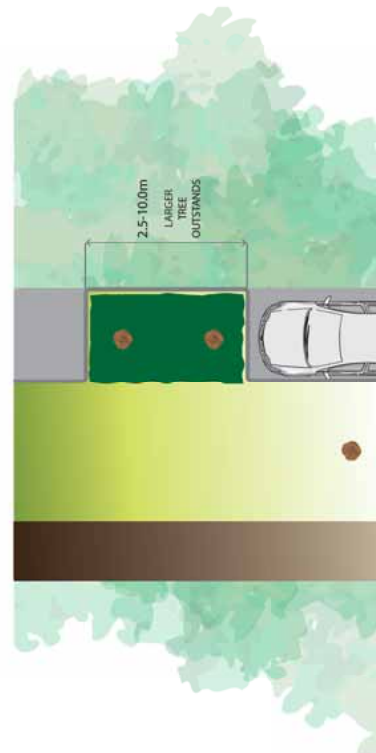
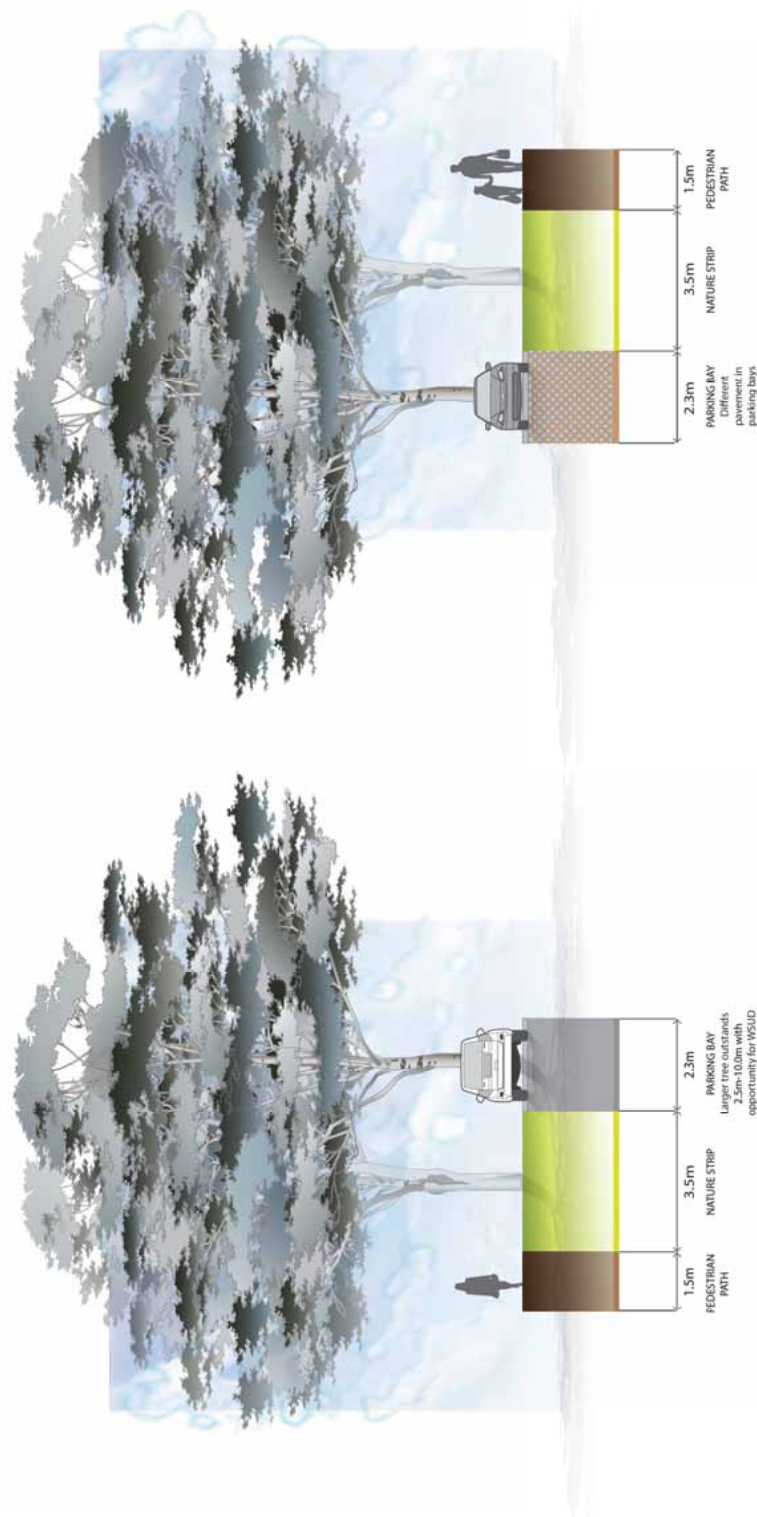
NOTES:

- Footpath in varying locations in nature strip
- Tree placement: adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath it to consider bin placement on nature strips, access to letter boxes for mail delivery, interface with driveways, definition of front allotment boundary and accommodation of bus stops
- Tree outstand with separate kerb surround shown

Cross Section B

Connector Street Standard (25.5m)

Variation Example 2 - Meandering footpath in nature strip



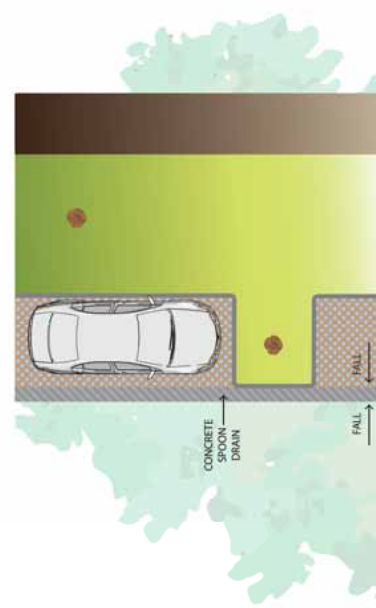
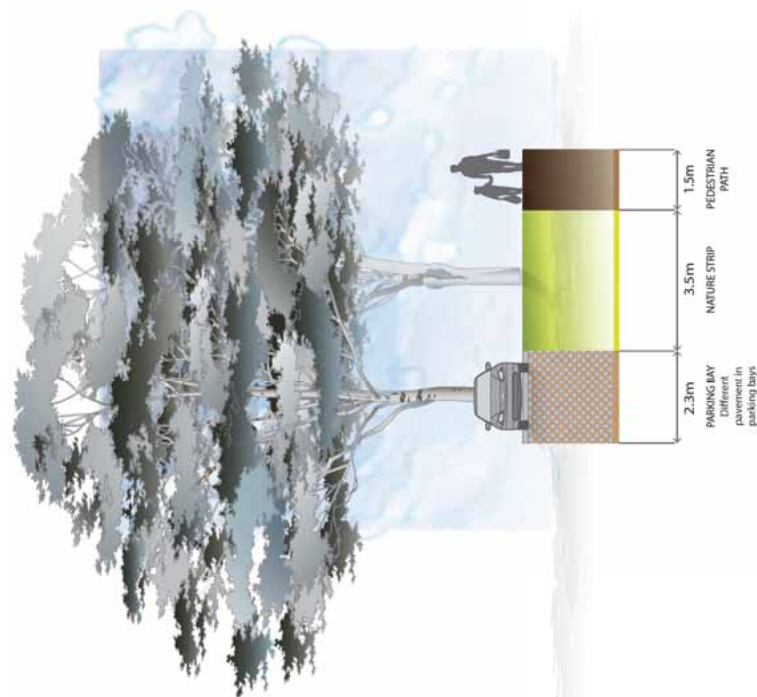
- Notes:
- For allotments with frontages of 13m or greater tree outstand lengths can be increased to accommodate more trees, garden bed planting and WSUD treatments
 - Provide a minimum distance of 6.0m between outstands and adjacent driveways

Cross Section C

Connector Street Standard (25.5m)

Variation Example 3 - Larger tree outstands

Possible Options include

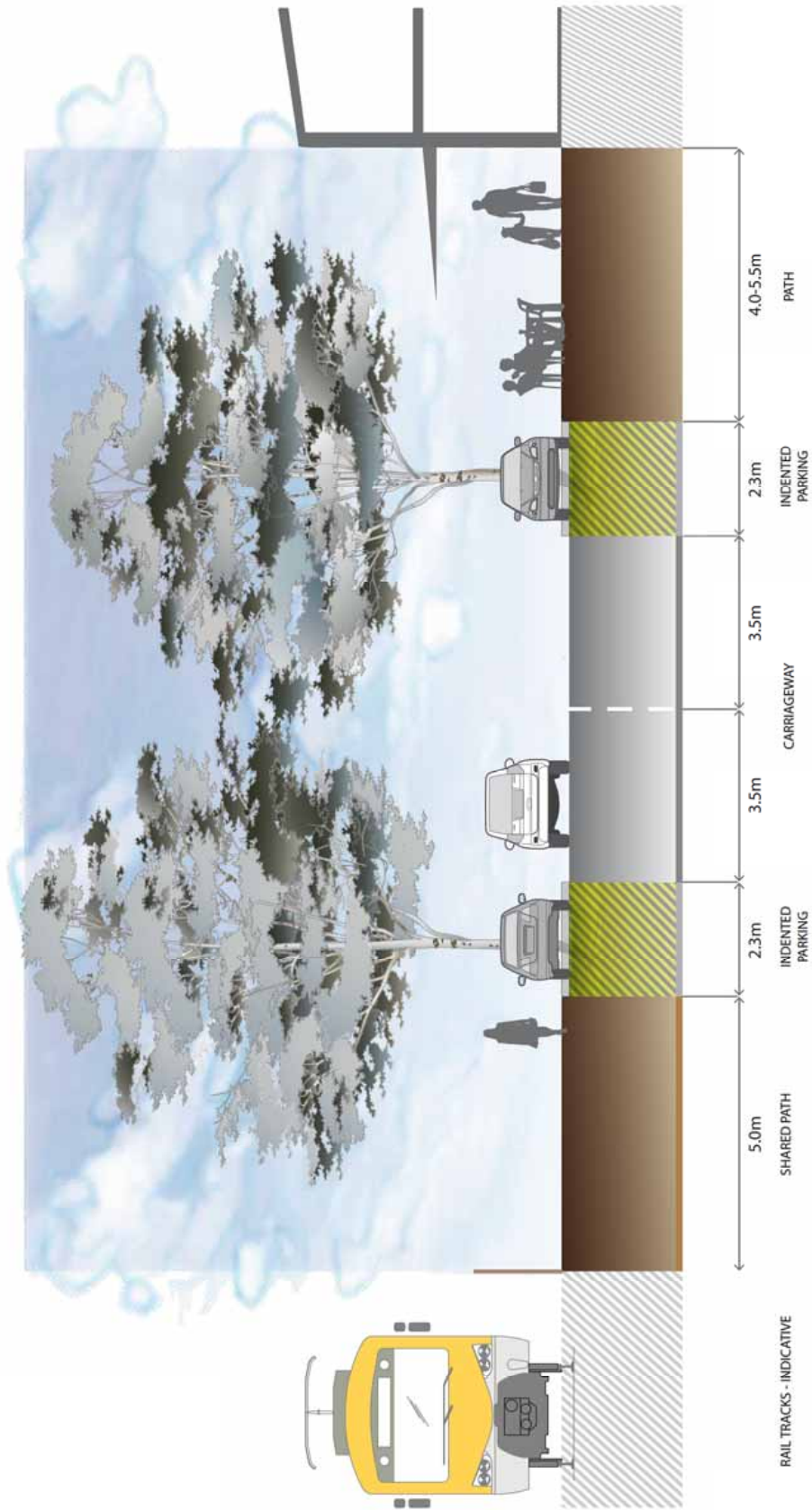


- Notes:
- A pavement treatment other than asphalt applied to parking bays
 - Spoon drain between carriageway and parking bay shown as an alternative drainage treatment

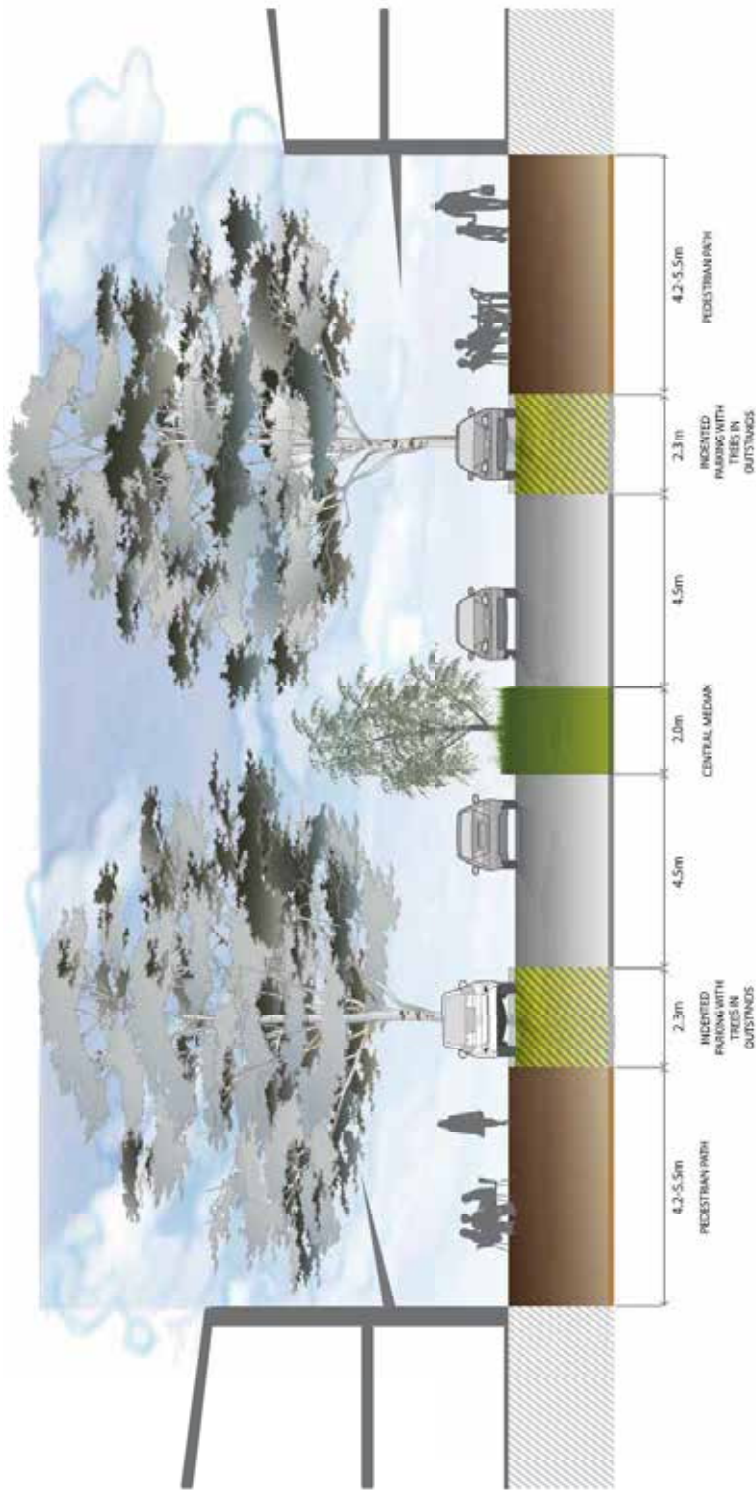
Cross Section D

Connector Street Standard (25.5m)

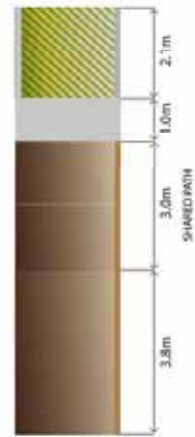
Variation Example 4 - Different pavement in parking bays



Cross Section
Connector Street
Train station / Twyford Road

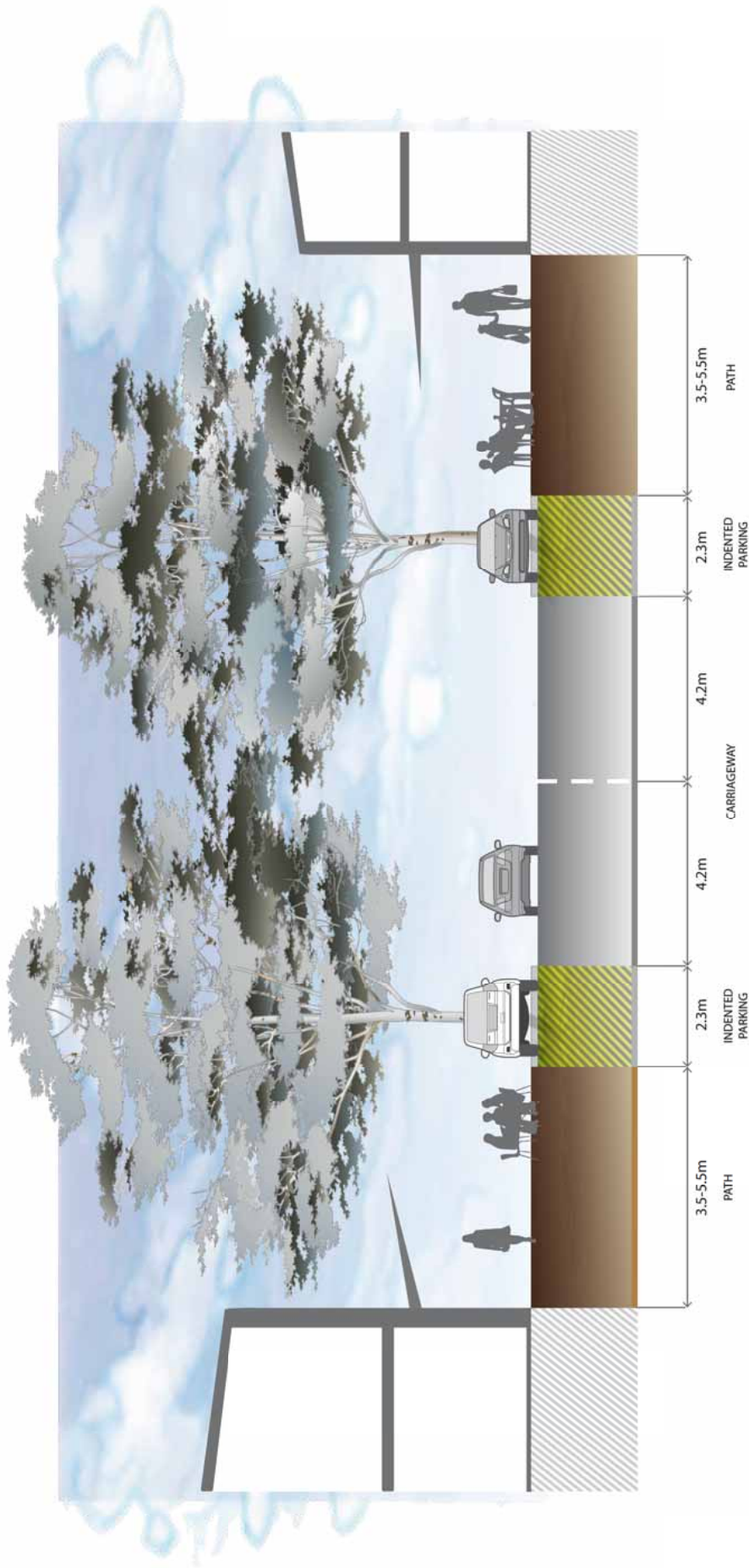


OPTION 1 - ON ROAD BIKE LANE



OPTION 2 - OFF ROAD BIKE LANE

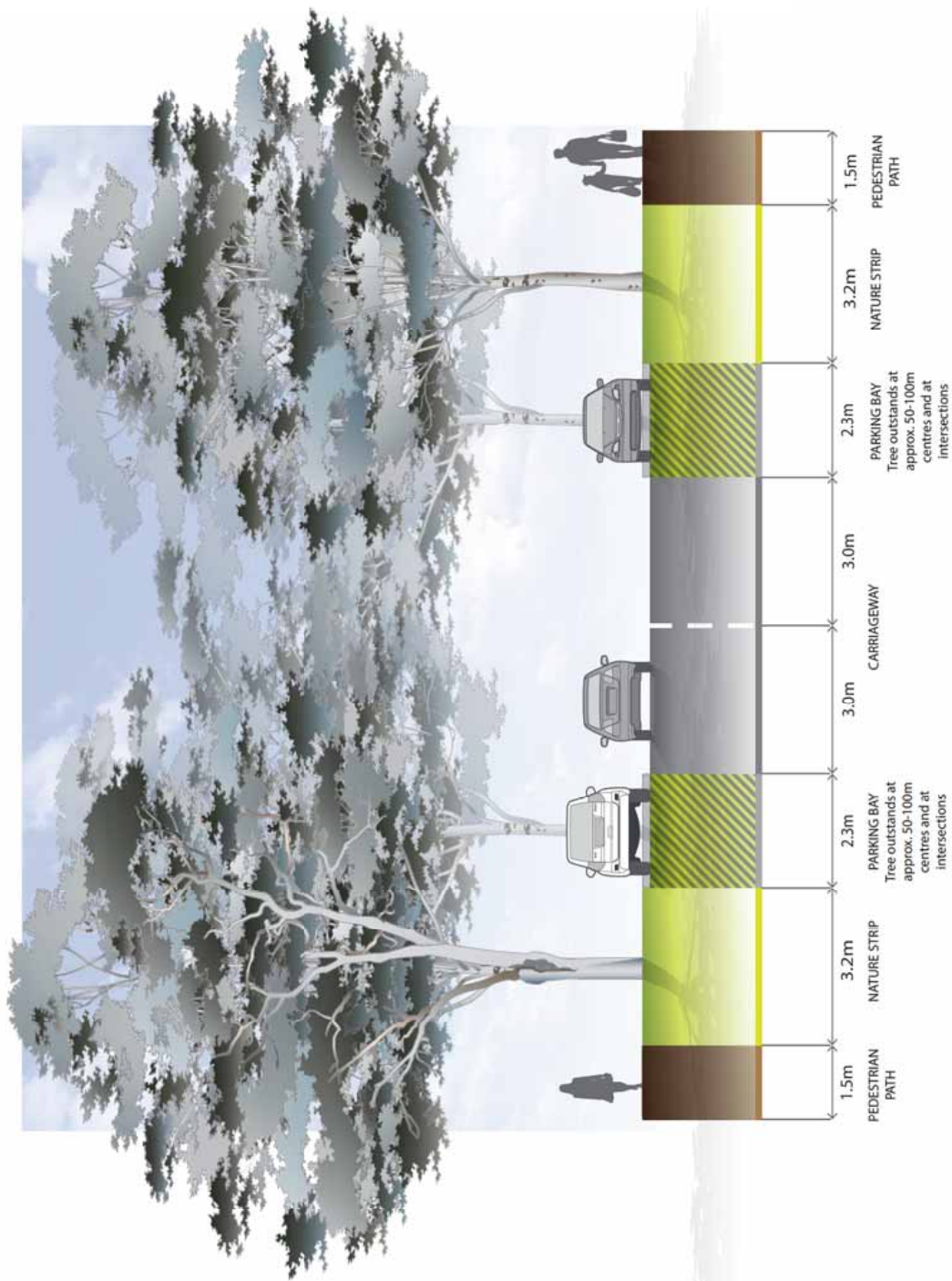
Cross Section
Town Centre (24m) - High Street



NOTES:

- Connector road with adjacent linear park to link central civic space of major town centre with urban active open space
- Create strong boulevard of trees evenly spaced across the cross section as shown
- Allotments adjacent linear open space to front park with vehicle access from rear

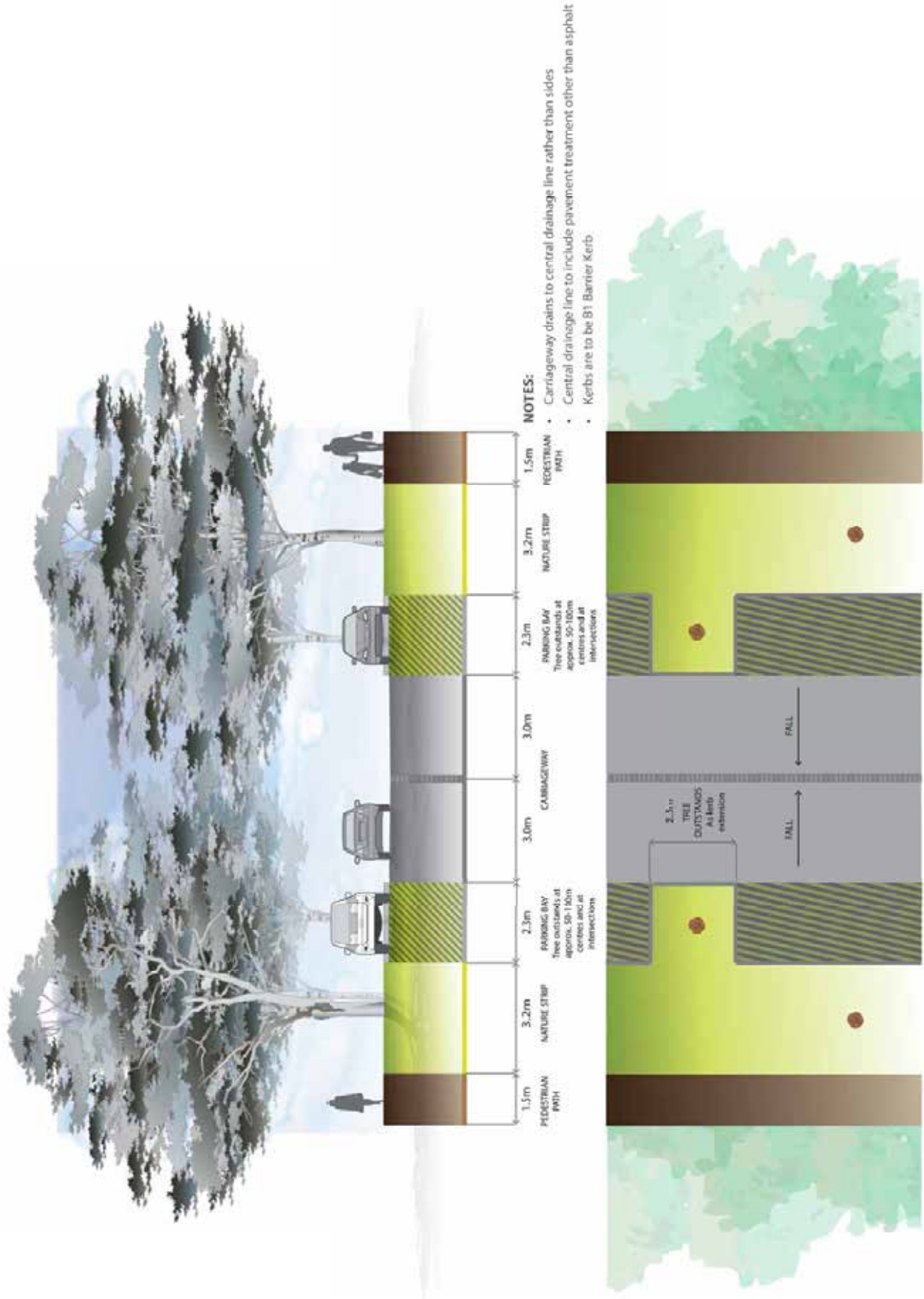
Cross Section
Retail Main Street
Bus Capable

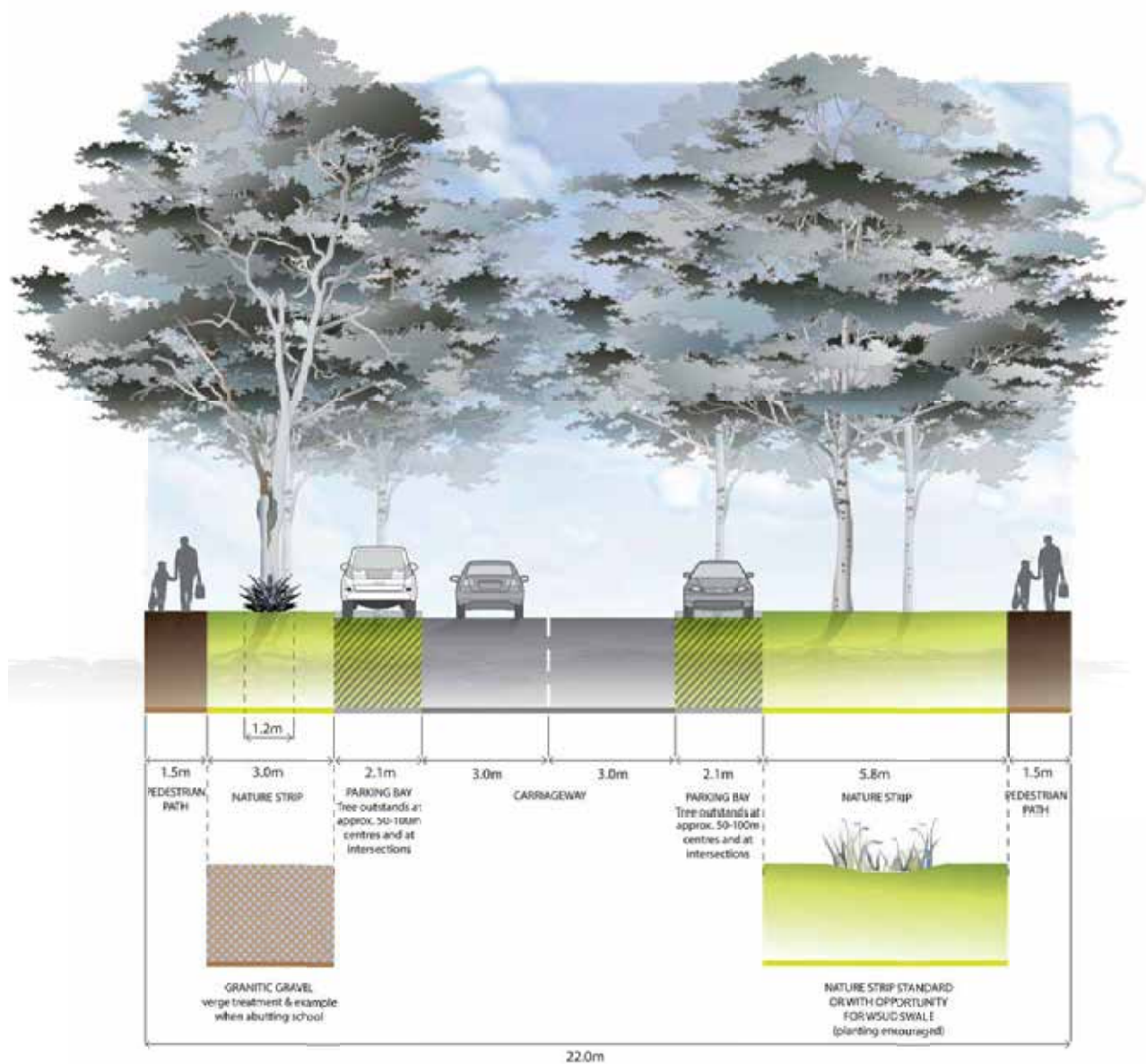


NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb

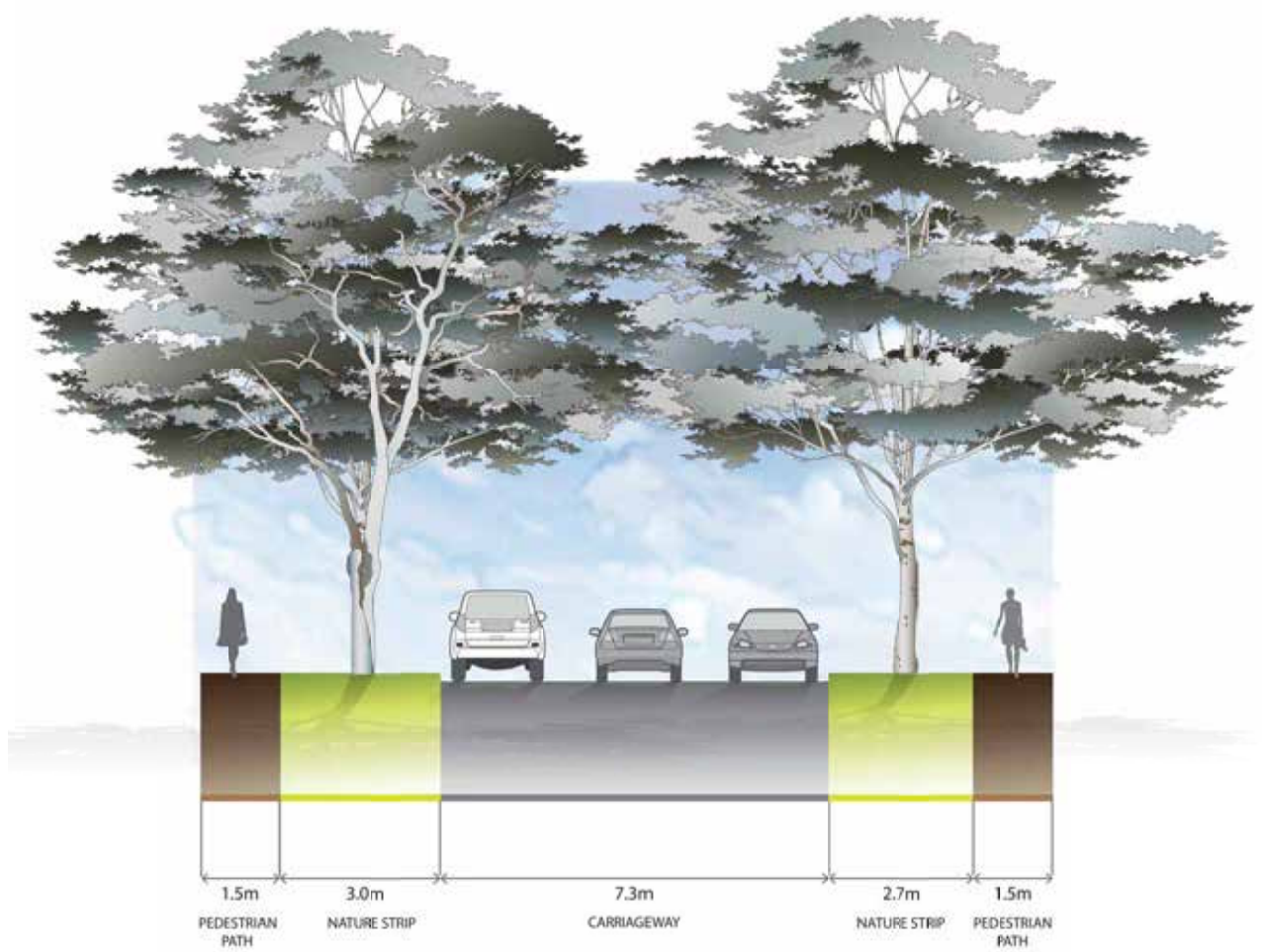
Cross Section
Local Access Level 2 Standard (20m)
 Variations 1, 2, 3 and 4 - as per Connector Road Variation 1, 2, 3 and 4 with nature strip width of 3.2m





Cross Section
Local Access Street Level 2 (22m) Options 1 & 2
Green link

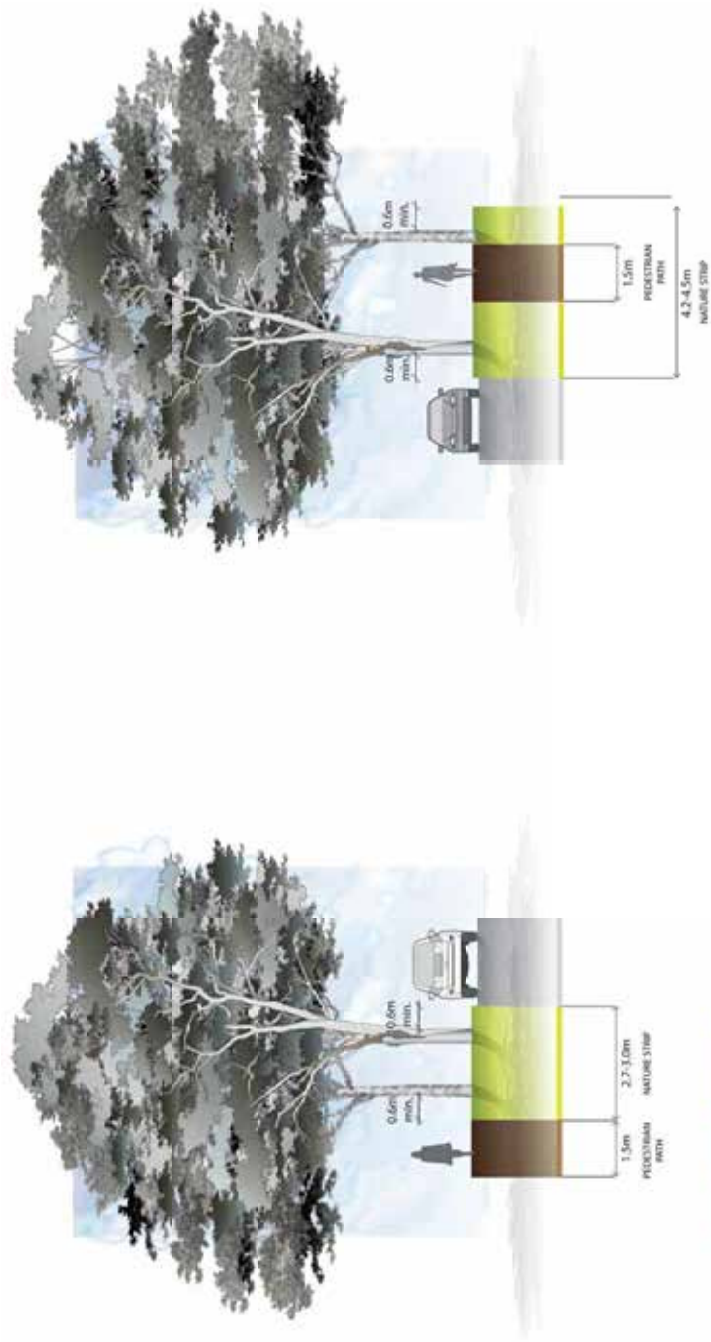
- Notes:**
- Road reserve on park frontages reduced to 19m minimum.
 - Design and location of street lights to be co-ordinated with design and location of street trees to ensure maximum street lighting effectiveness.
 - Street trees may be arranged in groups or single specimens or combination of both.



Cross Section 10
Local Access Level 1 (16m)
Standard

NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb



NOTES:

- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge

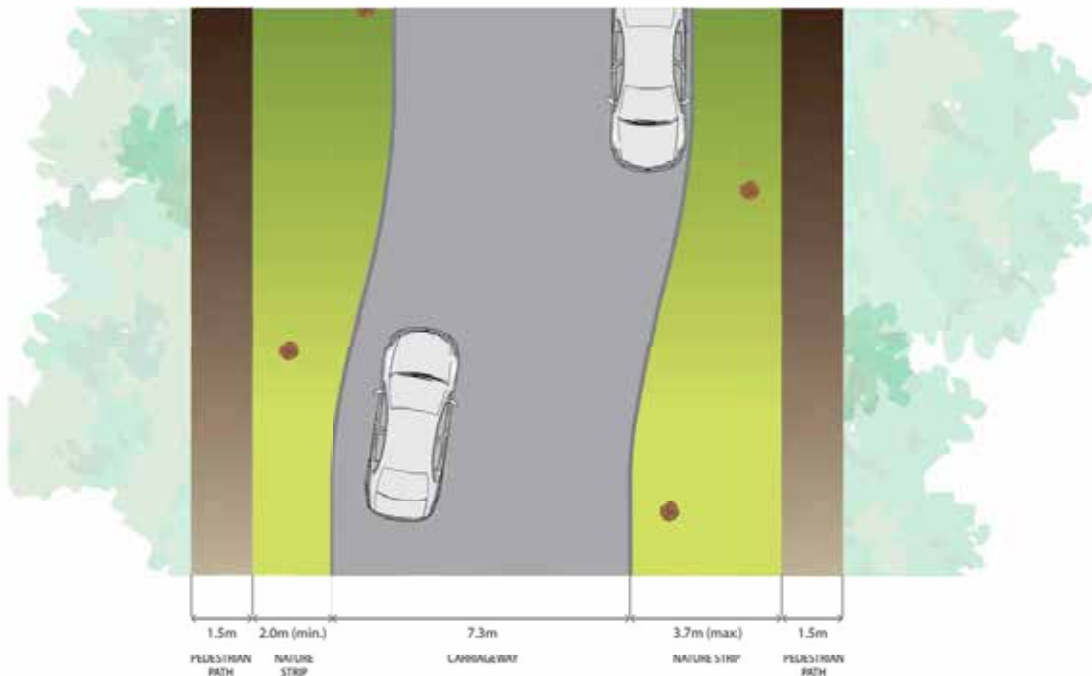
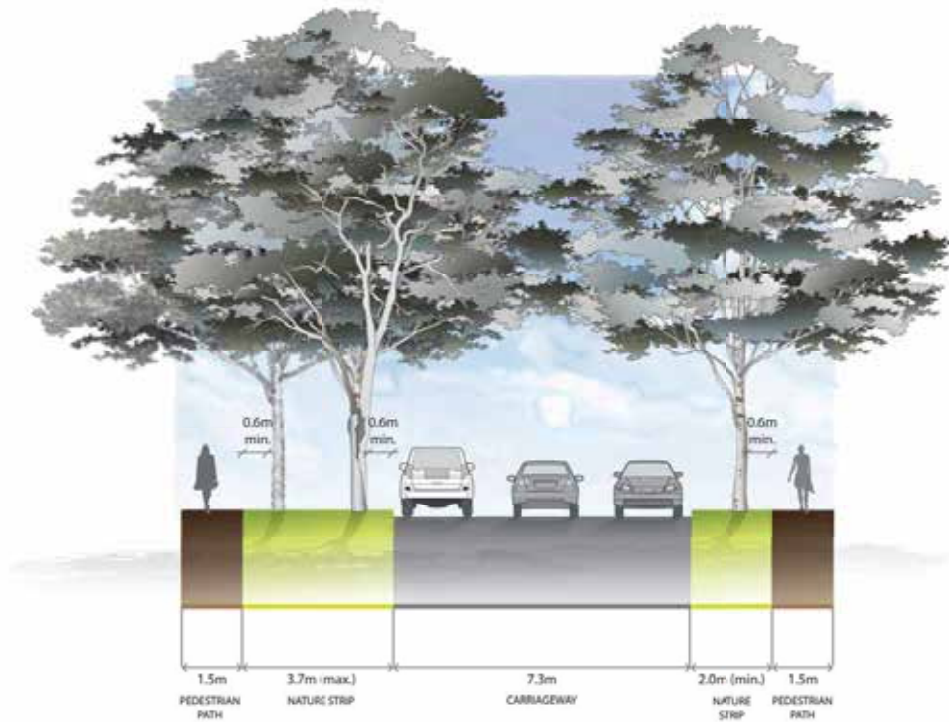
Cross Section A
Local Access Level 1 Standard (16m)
Variation 1
Varying tree placement in nature strip



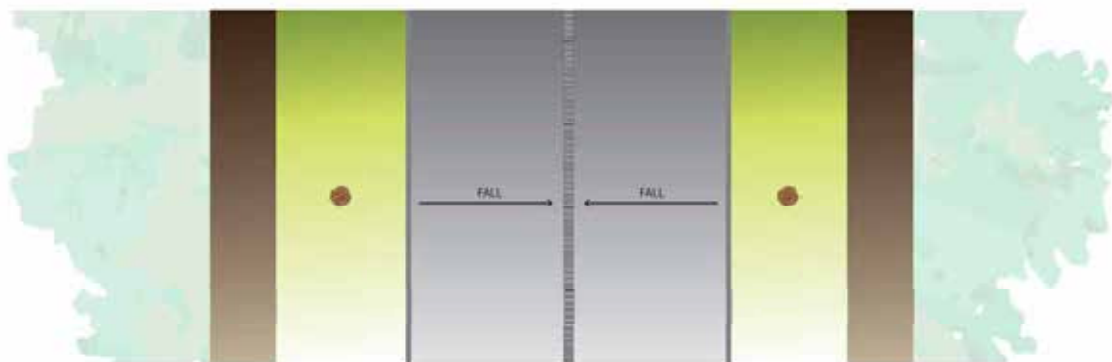
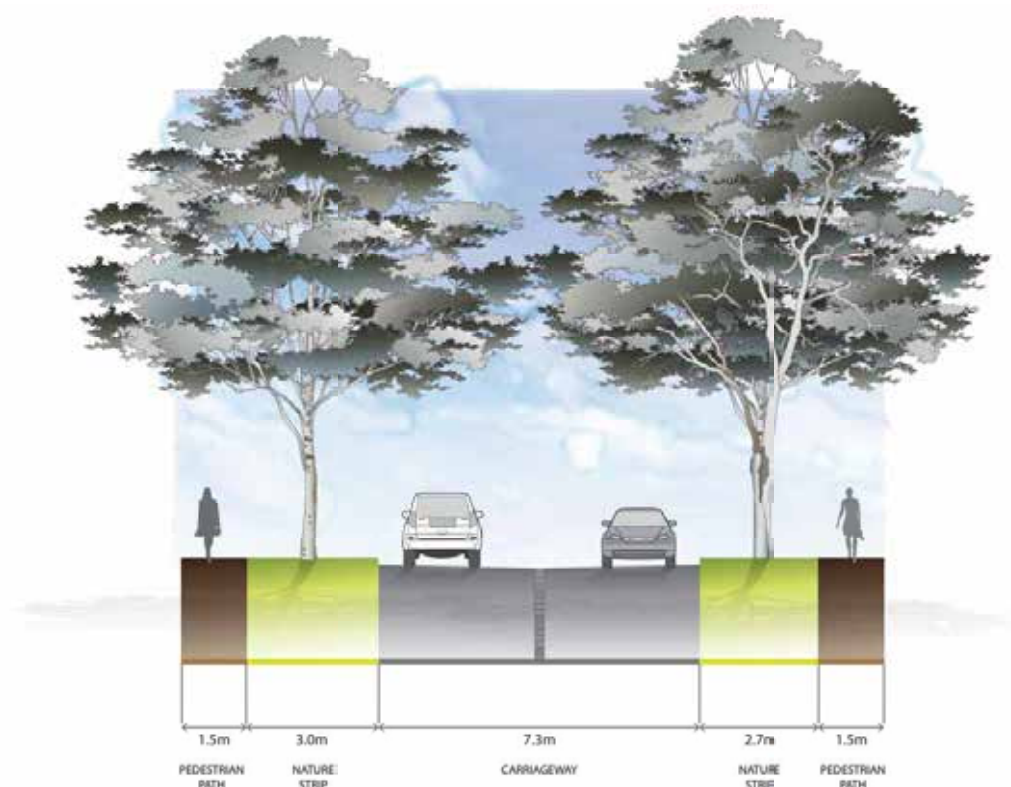
NOTES:

- Footpath in varying locations in nature strip
- Tree placement adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath is to consider bin placement on nature strips, access to letter boxes for mail

Cross Section B
Local Access Level 1 Standard (16m)
Variation 2
Meandering footpath in nature strip



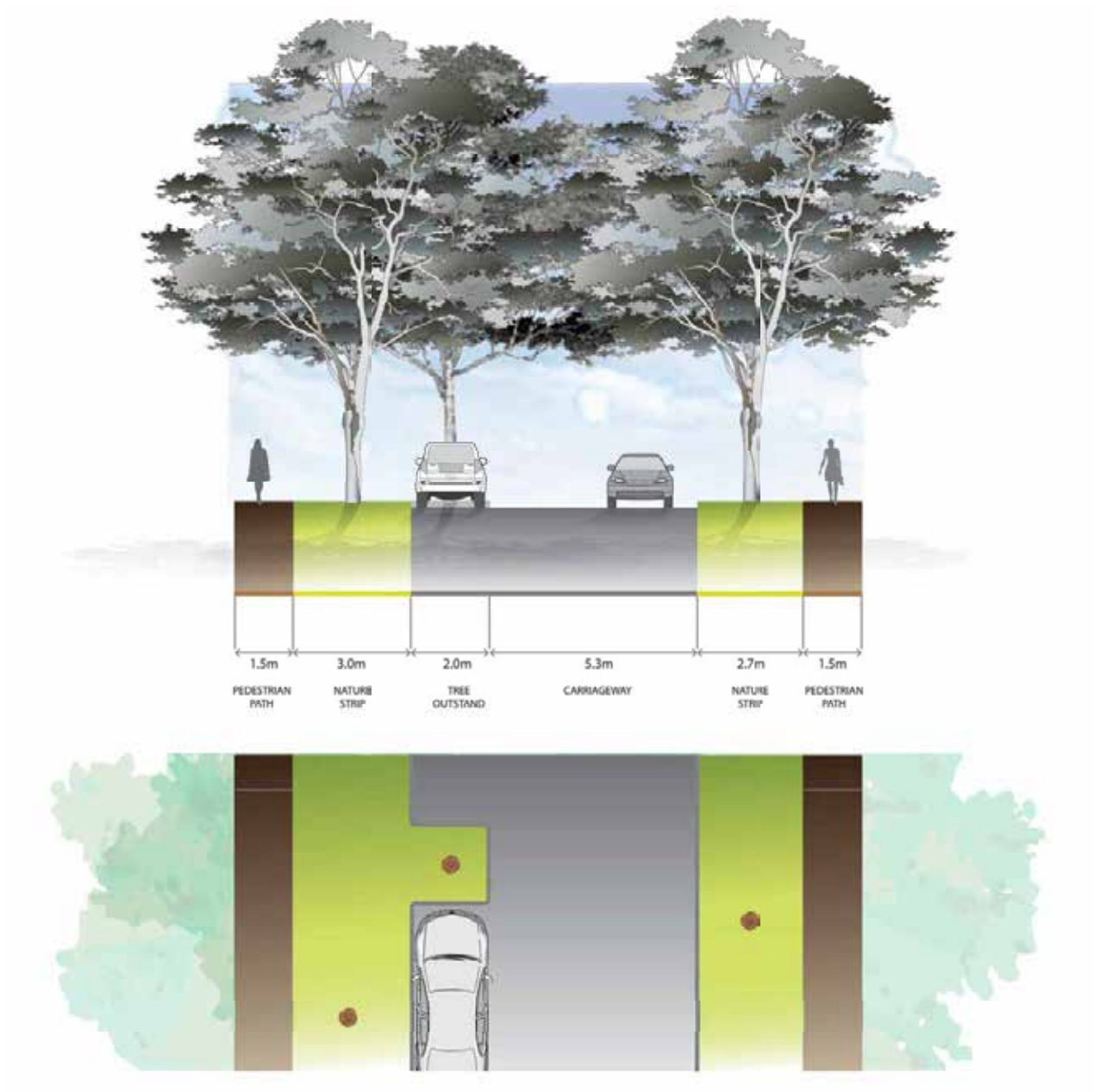
Cross Section C
Local Access Level 1 Standard (16m)
Variation 3 - Varying nature strip widths / meandering carriageway



NOTES:

- Carriageway drains to central drainage line rather than sides
- Central drainage line to include pavement treatment other than asphalt
- Kerbs are to be B1 Barrier Kerb
- Appropriate for short streets (less than 50m) with minimal through traffic or for frontage roads

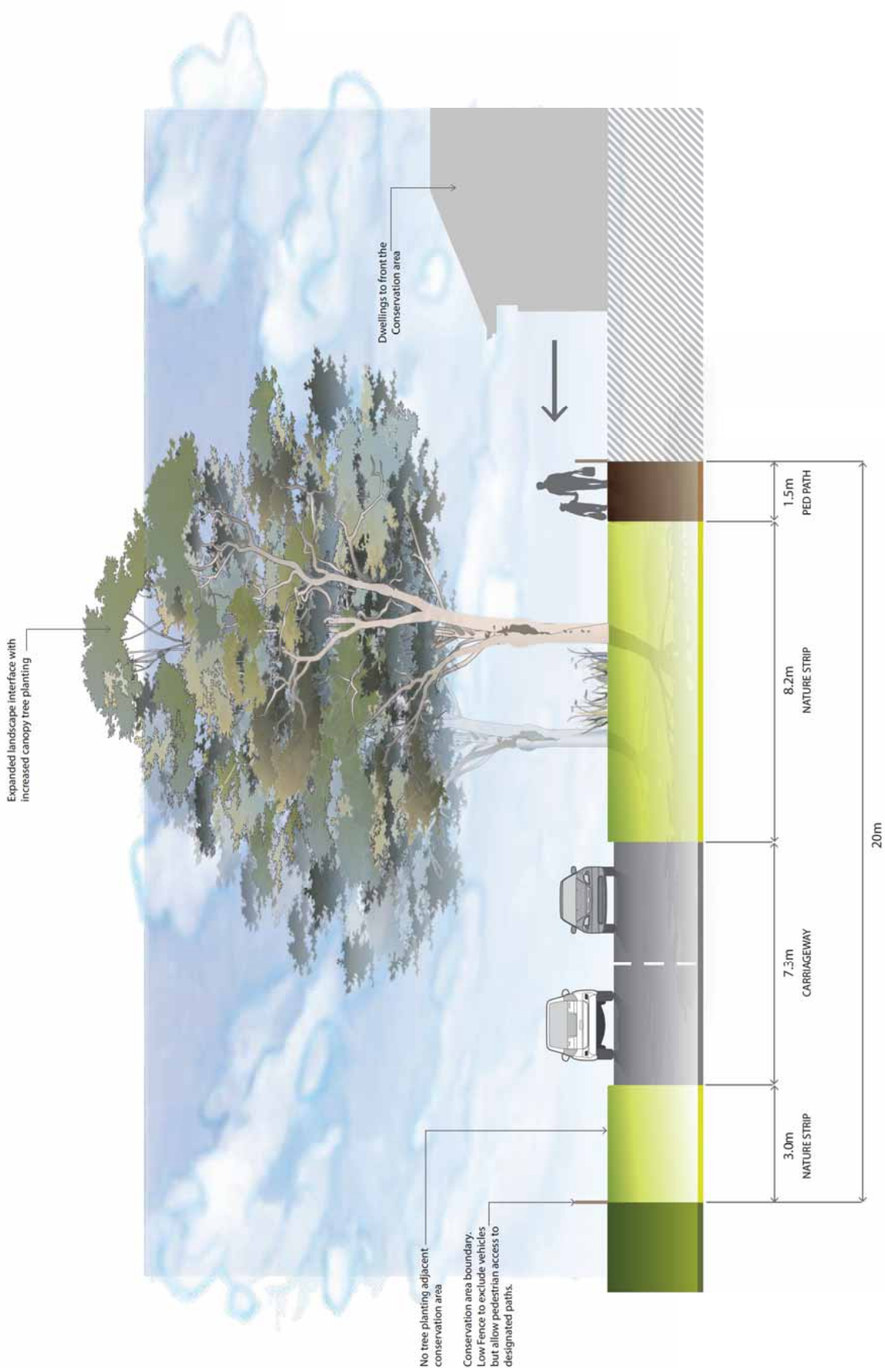
Cross Section D
Local Access Level 1 Standard (16m)
Variation 4 - Central drainage



NOTES:

- Include tree outstands at approx 50 – 100m centres on one side only
- Road design to ensure passage of emergency vehicles is accommodated

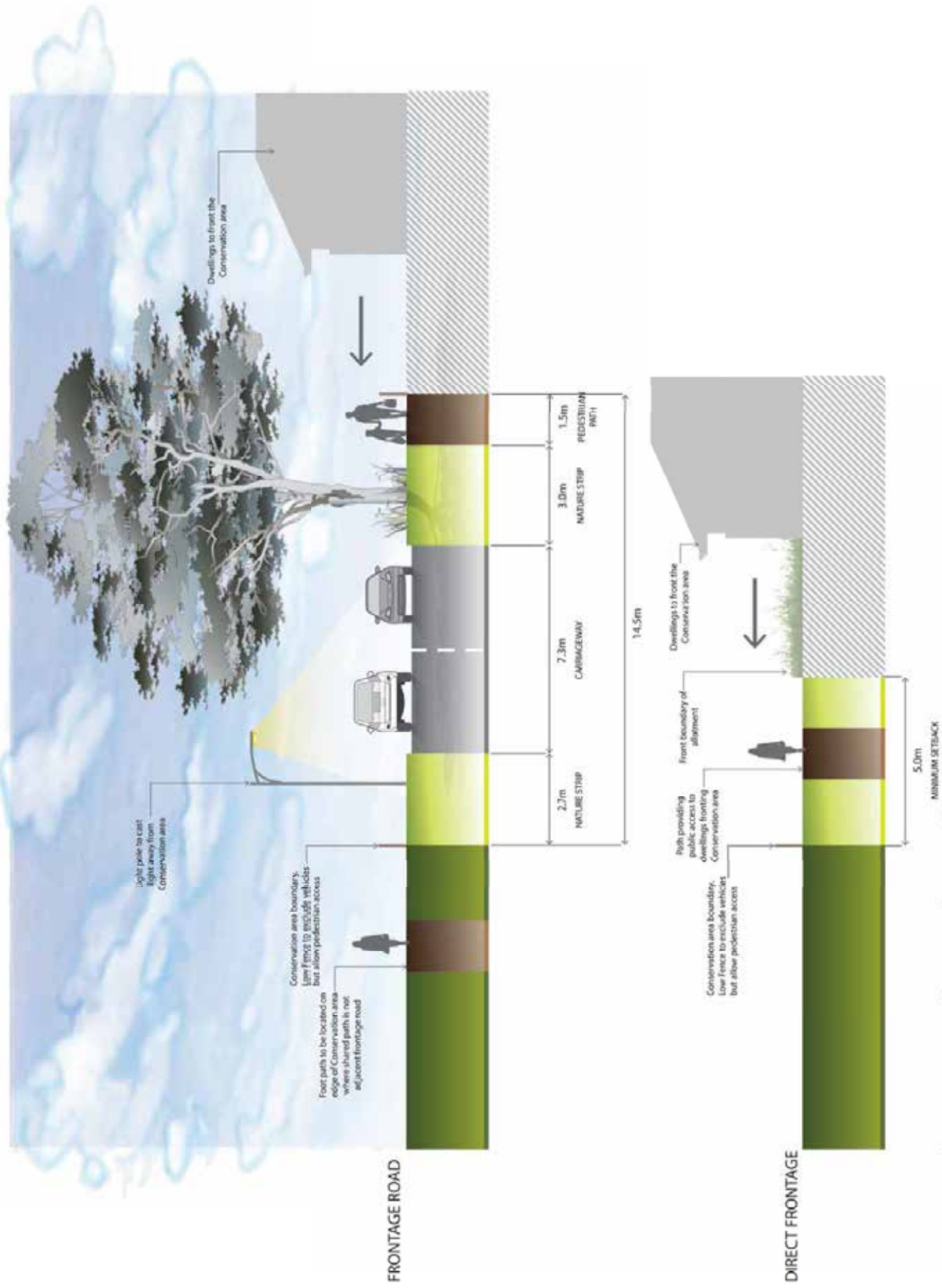
Cross Section E
Local Access Level 1 Standard (16m)
Variation 5 - Tree Outstands



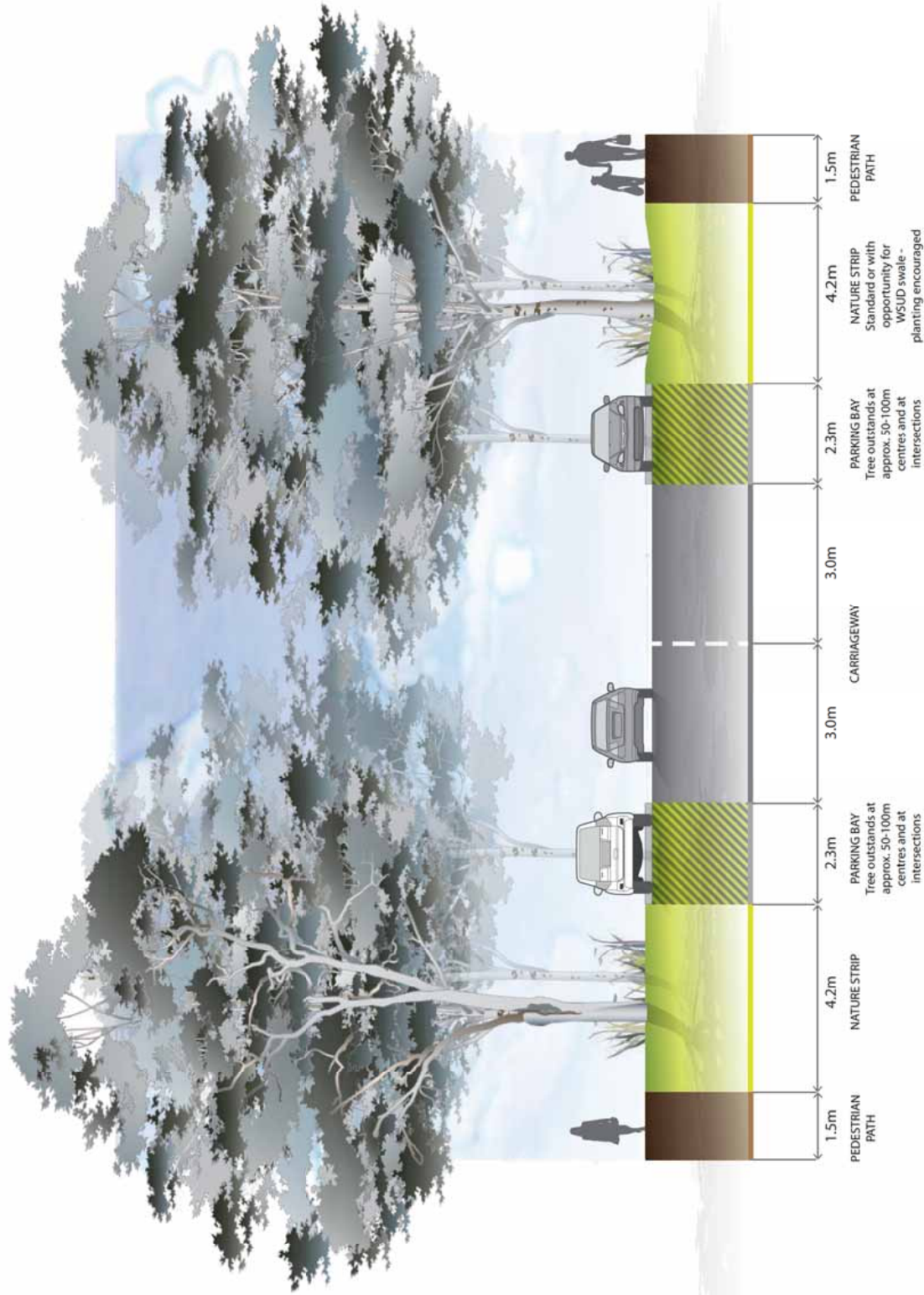
Cross Section - Sewells Road Conservation Area Interface



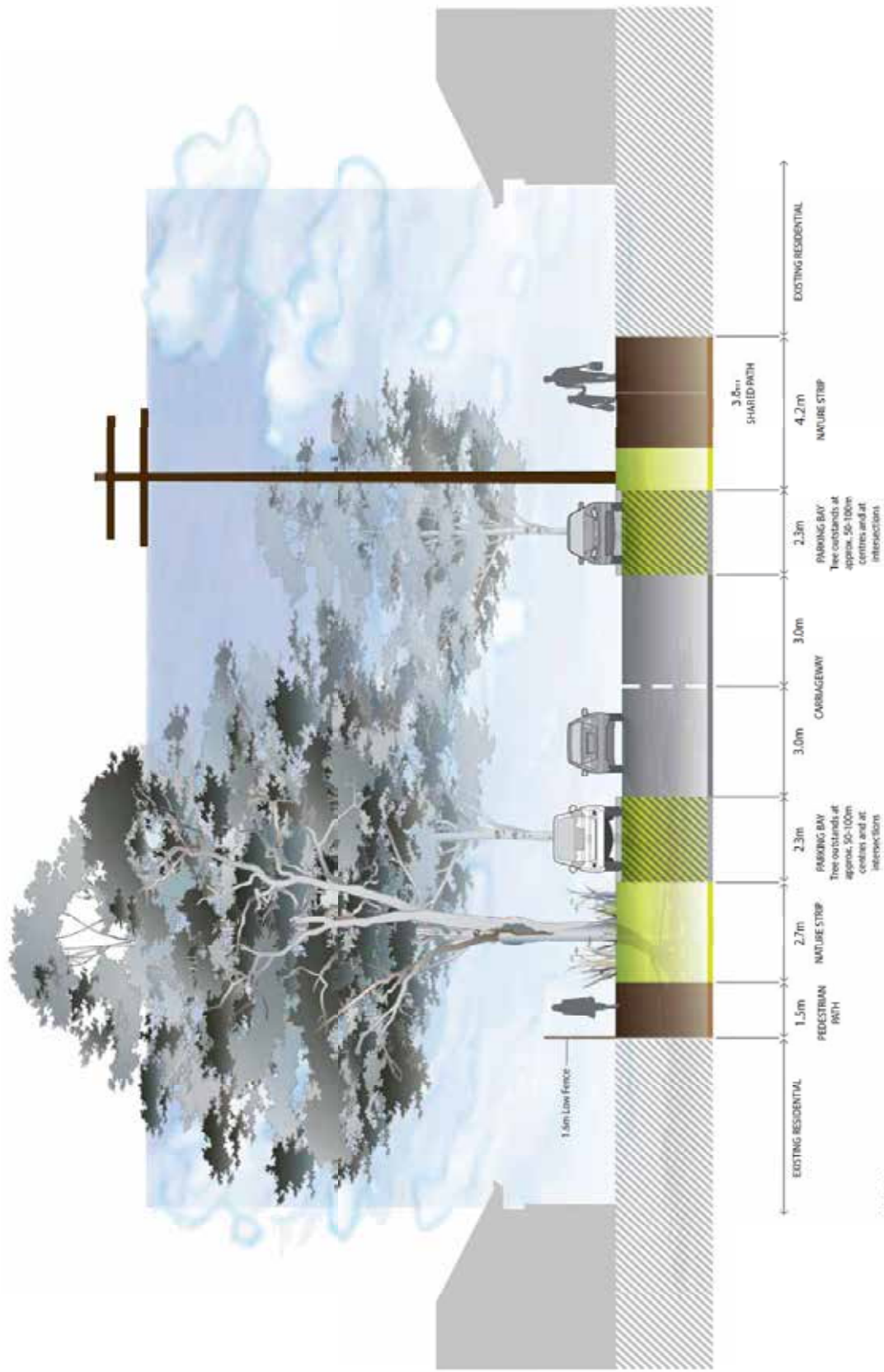
**Cross Section
(32m) High Profile Kerb to Median
Ballarto Road - Clyde Township**



Cross Section - Conservation Interface



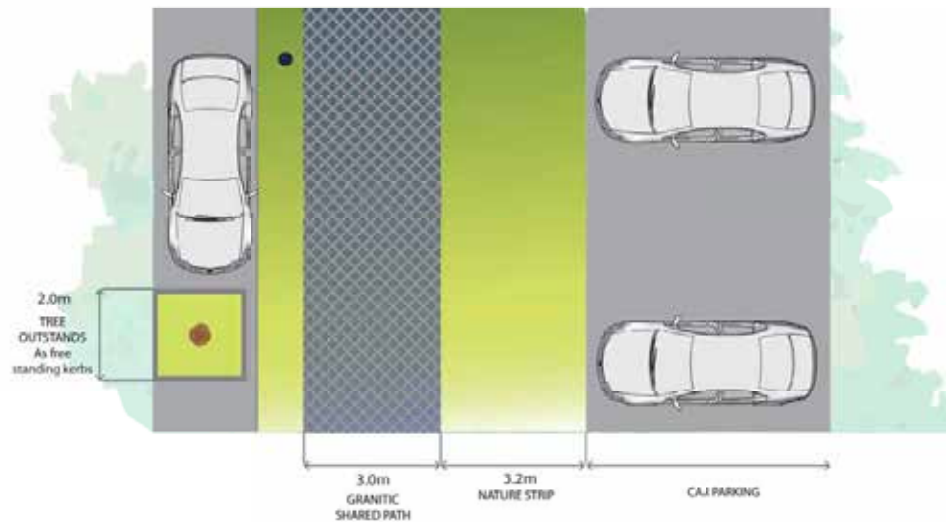
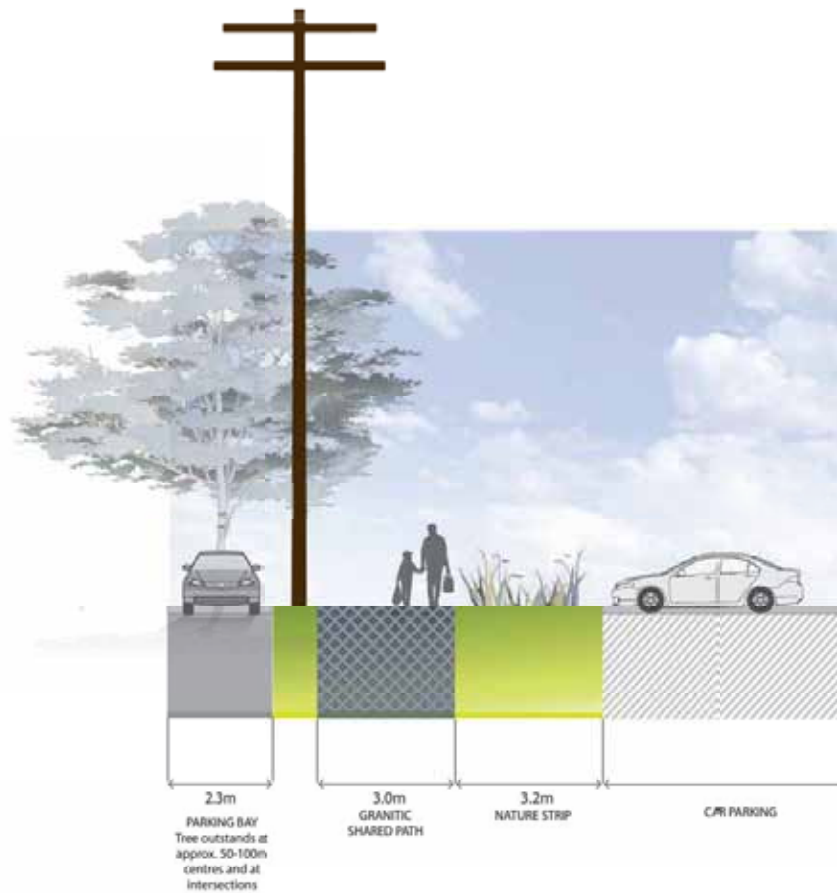
Cross Section
Local Access Street Level 2 (22m)
Oroya Grove



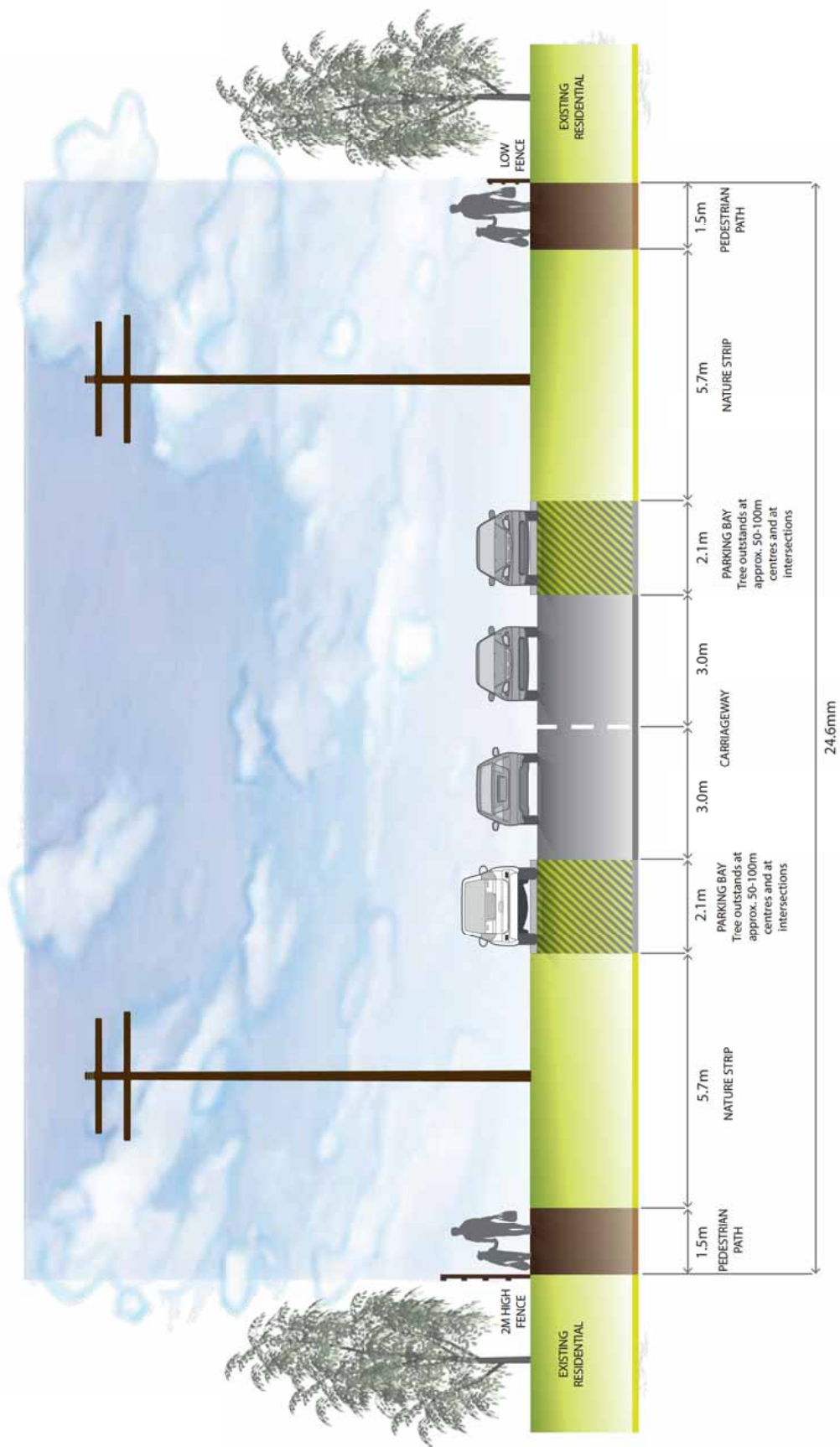
NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 018 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)

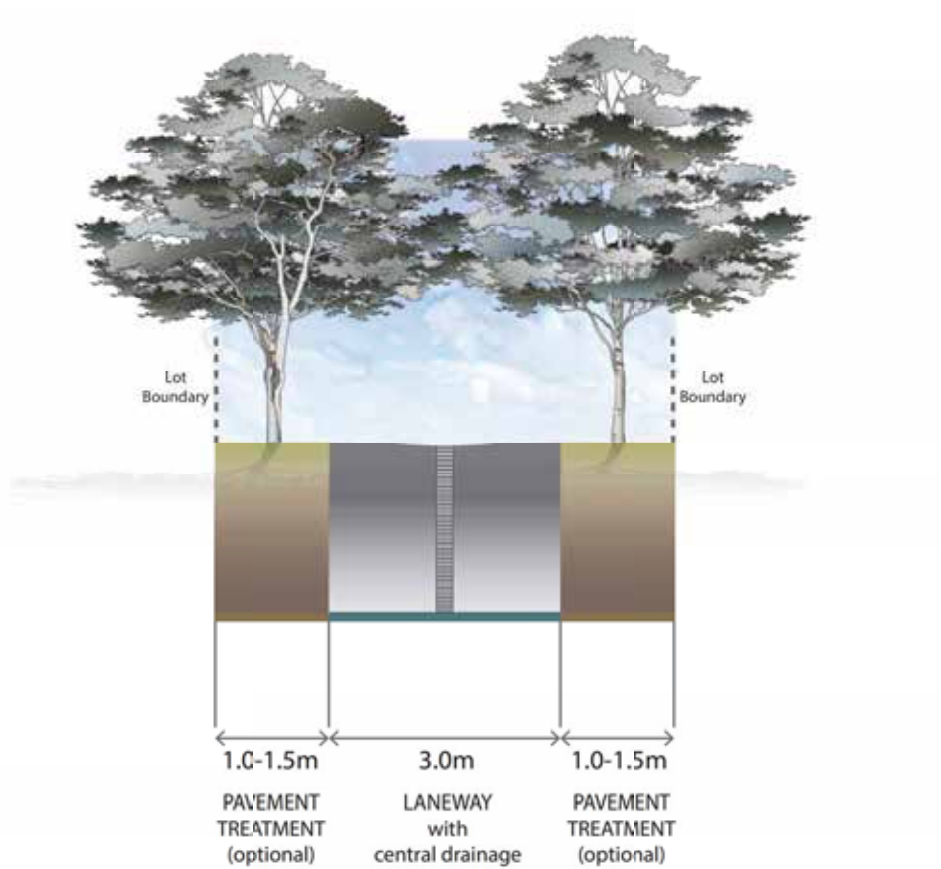
Cross Section
Local Access Level 2 (19m)
Railway Road



Cross Section
Local Access Level 2 (19m) - Railway Road
Variation 2 - Abutting car park / Train Station



Cross Section
Valetta Road (24.6m) - Clyde township



NOTES:

- Different pavement treatment to sides of laneway is optional
- Where different pavement treatment to sides is not provided, central drainage line is to include pavement treatment other than asphalt
- Small tree planting to sides of laneway is optional

**Cross Section
Laneway (5.0 - 6.0m) Standard**

4.4 Street Cross Sections

4.5 Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

Figures 003 and 004 in the Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011) outline placement of services for a typical residential street environment. This approach is appropriate for the majority of the 'standard' road cross sections outlined in Appendix C containing grassed nature strips, footpaths and road pavements.

NON-STANDARD ROAD CROSS SECTIONS

To achieve greater diversity of streetscape outcomes in Melbourne's growth areas, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Non-standard road cross sections will also be necessary to address local needs, such as fully sealed verges for high pedestrian traffic areas in town centres and opposite schools. This PSP contains suggested non-standard 'variation' road cross sections, however other non-standard outcomes are encouraged.

For non-standard road cross sections where service placement guidance outlined in Figure 003 and 004 in the Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011) is not applicable, the following service placement guidelines will apply.

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES ¹	UNDER KERB	UNDER ROAD PAVEMENT	WITHIN ALLOTMENTS	NOTES
SEWER	Preferred	Possible	Possible	No	Possible	Possible ³	
POTABLE WATER	Possible ⁴	Preferred	Preferred	No	No	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible ⁴	Preferred	Preferred	No	No	No	
GAS	Possible ⁴	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred ⁴	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH/TELCO	Preferred ⁴	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Preferred	Possible ³	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Preferred	No	

- NOTES**
- 1 Trees are not to be placed directly over property service connections
 - 2 Placement of services under road pavement is to be considered when service cannot be accommodated elsewhere in road reserve. Placement of services beneath edge of road pavement/parking bays is preferable to within traffic lanes
 - 3 Where allotment size/frontage width allows adequate room to access and work on a pipe
 - 4 Where connections to properties are within a pit in the pedestrian pavement/footpath

GENERAL PRINCIPLES FOR SERVICE PLACEMENT

- Place gas and water on one side of road, electricity on the opposite side
- Place water supply on the high side of road
- Place services that need connection to adjacent properties closer to these properties
- Place trunk services further away from adjacent properties
- Place services that relate to the road carriageway (eg. drainage, street light electricity supply) closer to the road carriageway

- Maintain appropriate services clearances and overlap these clearances wherever possible

4.6 Open Space Category Guide

CITY OF CASEY CITY DRAFT PARK CLASSIFICATIONS & EMBELLISHMENT LIST

PASSIVE RECREATION PARK

A park that provides opportunities for a variety of recreational and social activities in a green space setting. Passive Recreation park's come in a variety of landforms, and in many cases provide opportunities to protect and enhance landscape amenity.

NEIGHBOURHOOD

- Passive recreation park suitable for local recreation/social activities
- Junior play emphasis
- Attracts users from the local area (ie 400m catchment)
- Recreational/social facilities suitable for local activities/events.
- Minimal support facilities (seats, bin etc)
- Footpath/bikeway links

DISTRICT (1HA OR GREATER)

- Passive recreation park suitable for district-level recreation/social activities
- Junior and youth play emphasis
- Attracts users from the district (ie 2km catchment)
- Recreational/social facilities suitable for district activities/events.
- Basic support facilities eg. amenities, BBQ, Picnic tables, shelters, seats etc)
- Footpath/bikeway links

MUNICIPAL (5HA OR GREATER)

- Major passive recreation park suitable for Citywide recreation/social events
- Attracts users from municipality and adjacent municipalities
- Capacity to sustain high level recreational/social use (5000+) over long periods
- High level recreational/social facilities suitable for Citywide events.
- Junior and youth play emphasis
- High level support facilities eg parking, amenities (toilets), signage
- Footpath/bikeway links
- Public transport
- Car spaces (on and off street)
- Bus Spaces (on and off street)

REGIONAL

- Major passive recreation park suitable for regional recreation/social events
- Capacity to sustain high level recreational/social use (10000+) over long periods
- High level recreational/social facilities suitable for regional events.
- Junior and youth play emphasis
- High level support facilities eg parking, amenities, signage
- Footpath/bikeway links
- Public transport
- Car spaces (off street)
- Bus Spaces (off street)

LINEAR PARK

To provide pedestrian/cyclist links in a parkland setting.

A park that is developed and used for pedestrian and cyclist access, both recreational and commuter, between residential areas and key community destinations such as recreational facilities, schools and other community facilities, public transport and places of work. Linear Reserves are generally linear in nature and follow existing corridors such as water courses and roads. They usually contain paths or tracks (either formal or informal) that form part of a wider path/track network. While the primary function of Linear Reserve is pedestrian & cyclist access, these parks may serve additional purpose such as storm water conveyance, fauna movement and ecological/biodiversity protection.

NEIGHBOURHOOD

- Park corridor that provides local link
- Attracts users from the local area (ie 400m catchment)
- Capacity to sustain low level accessibility over short periods
- Minor access facilities eg path
- Footpath/bikeway links

DISTRICT

- Major park corridor that provides district link
- Attracts users from the district (ie 2 km catchment)
- Capacity to sustain moderate level accessibility over long periods
- Basic access facilities eg path, signage
- Footpath/bikeway links

MUNICIPAL

- Major park corridor that provides metropolitan link
- Attracts users from municipality and adjacent municipalities
- Capacity to sustain high level accessibility over long periods
- High level access facilities eg paths, signage, shade, water fountains
- Footpath/bikeway links
- Public transport
- Car spaces (on street)
- Bus Spaces (on street)

REGIONAL

- Major park corridor that provides regional link
- Capacity to sustain high level accessibility over long periods
- High level access facilities eg paths, signage, shade, water fountains
- Footpath/bikeway links
- Public transport
- Car spaces (on and off street)
- Bus Spaces (on and off street)

TOWN SQUARE/URBAN PARK

(Area equal to or less than 0.3ha or unless otherwise designated)

A passive recreation park providing opportunities for a variety of recreational and social activities in an urban setting. They are located predominantly in medium to high density residential area and mixed use centres or corridors. They provide an important role in meeting the passive recreation needs of residents, workers and visitors in activity centres and/or medium to high density residential areas.

Town squares are to be predominately hard landscaped, while urban parks have less hardstand than town squares, but more than traditional neighbourhood passive recreation parks. Urban parks also offer the opportunity for low key kick and throw activities a small turfed area.

